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<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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<212> DNA

<213> Homo sapiens

<400> 4825

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<400> 4826
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Arg	Val	Val	Pro	Thr	Leu	Ser	Thr	Thr	Asp	Met	Lys	Thr	Ala	Asp	Lys
			260					265					270		
Val	Glu	Leu	Gly	Asp	Ser	Asp	Leu	Lys	Ile	Met	Leu	Lys	Lys	His	His
		275					280					285			
Glu	Lys	Arg	Lys	His	Gln	Pro	Asp	His	Pro	Asp	Leu	Leu	Thr	Gly	Asp
	290					295					300				
Leu	Thr	Leu	Asn	Asp	Ile	Met	Thr	Arg	Val	Asn	Ala	Gly	Arg	Lys	Gly
305					310					315					320
Ser	Leu	Ala	Ala	Leu	Tyr	Asp	Leu	Ala	Val	Leu	Lys	Lys	Lys	Val	Lys
				325					330					335	
Glu	Lys	Glu	Glu	Lys	Lys	Lys	Lys	Lys	Ile	Lys	Thr	Ile	Lys	Ser	Glu
			340					345					350		
Ala	Glu	Asp	Leu	Ala	Glu	Pro	Leu	Ser	Ser	Thr	Glu	Gly	Val	Ala	Pro
		355					360					365			
Leu	Ser	Gln	Ala	Pro	Ser	Pro	Leu	Ala	Ile	Pro	Ala	Ile	Lys	Glu	Glu
	370					375					380				
Pro	Leu	Glu	Asp	Leu	Lys	Pro	Cys	Leu	Gly	Ile	Asn	Glu	Ile	Ser	Ser
385					390					395					400
Ser	Phe	Phe	Ser	Leu	Leu	Leu	Glu	Ile	Leu	Leu	Leu	Glu	Ser	Gln	Ala
				405					410					415	
Ser	Leu	Pro	Met	Leu	Glu	Glu	Arg	Val	Leu	Asp	Trp	Gln	Ser	Ser	Pro
			420					425					430		
Ala	Ser	Ser	Leu												

		515					520					525				
Thr	Asp	Tyr	Val	Val	Arg	Pro	Ser	Thr	Gly	Glu	Glu	Lys	Arg	Val	Phe	
	530					535					540					
Gln	Glu	Gln	Glu	Arg	Tyr	Arg	Tyr	Ser	Gln	Pro	His	Lys	Ala	Phe	Thr	
545					550					555					560	
Phe	Arg	Met	His	Gly	Phe	Glu	Ser	Val	Val	Gly	Pro	Val	Lys	Gly	Val	
				565					570						575	
Phe	Asp	Lys	Glu	Thr	Ser	Leu	Asn	Lys	Ala	Arg	Glu	His	Ser	Leu	Leu	
			580					585					590			
Arg	Ser	Asp	Arg	Pro	Ala	Tyr	Val	Thr	Ile	Leu	Ser	Leu	Val	Arg	Asp	
		595					600					605				
Ala	Ala	Ala	Arg	Leu	Pro	Asn	Gly	Glu	Gly	Thr	Arg	Ala	Glu	Ile	Cys	
	610					615					620					
Glu	Leu	Leu	Lys	Asp	Ser	Gln	Phe	Leu	Ala	Pro	Asp	Val	Thr	Ser	Thr	
625					630					635					640	
Gln	Val	Asn	Thr	Val	Val	Ser	Gly	Ala	Leu	Asp	Arg	Leu	His	Tyr	Glu	
				645					650						655	
Lys	Asp	Pro	Cys	Val	Lys	Tyr	Asp	Ile	Gly	Arg	Lys	Leu	Trp	Ile	Tyr	
		660					665						670			
Leu	His	Arg	Asp	Arg	Ser	Glu	Glu	Glu	Phe	Glu	Arg	Ile	His	Gln	Ala	
	675						680					685				
Gln	Ala	Ala	Ala	Ala	Lys	Ala	Arg	Lys	Ala	Leu	Gln	Gln	Lys	Pro	Lys	
	690					695					700					
Pro	Pro	Ser	Lys	Val	Lys	Ser	Ser	Ser	Lys	Glu	Ser	Ser	Ile	Lys	Val	
705					710					715					720	
Leu	Ser	Ser	Gly	Pro	Ser	Glu	Gln	Ser	Gln	Met	Ser	Leu	Ser	Asp	Ser	
				725					730						735	
Ser	Met	Pro	Pro	Thr	Pro	Val	Thr	Pro	Val	Thr	Pro	Thr	Thr	Pro	Ala	
			740					745					750			
Leu	Pro	Ala	Ile	Pro	Ile	Ser	Pro	Pro	Pro	Val	Ser	Ala	Val	Asn	Lys	
	755						760					765				
Ser	Gly	Pro	Ser	Thr	Val	Ser	Glu	Pro	Ala	Lys	Ser	Ser	Ser	Gly	Val	
	770					775					780					
Leu	Leu	Val	Ser	Ser	Pro	Thr	Met	Pro	His	Leu	Gly	Thr	Met	Leu	Ser	
785					790					795					800	
Pro	Ala	Ser	Ser	Gln	Thr	Ala	Pro	Ser	Ser	Gln	Ala	Ala	Ala	Arg	Val	
				805					810						815	
Val	Ser	His	Ser	Gly	Ser	Ala	Gly	Leu	Ser	Gln	Val	Arg	Val	Val	Ala	
			820					825					830			
Gln	Pro	Ser	Leu	Pro	Ala	Val	Pro	Gln	Gln	Ser	Gly	Gly	Pro	Ala	Gln	
	835						840					845				
Thr	Leu	Pro	Gln	Met	Pro	Ala	Gly	Pro	Gln	Ile	Arg	Val	Pro	Ala	Thr	
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Ile Pro Leu Thr Ala Thr Asn Phe Arg Ile Gln Gly Lys Asp Val Leu
          965          970          975
Arg Leu Pro Pro Ser Ser Ile Thr Thr Asp Ala Lys Gly Gln Thr Val
          980          985          990
Leu Arg Ile Thr Pro Asp Met Met Ala Thr Leu Ala Lys Ser Gln Val
          995          1000          1005
Thr Thr Val Lys Leu Thr Gln Asp Leu Phe Gly Thr Gly Gly Asn Thr
          1010          1015          1020
Thr Gly Lys Gly Ile Ser Ala Thr Leu His Val Thr Ser Asn Pro Val
          1025          1030          1035          1040
His Ala Ala Asp Ser Pro Ala Lys Ala Ser Ser Ala Ser Ala Pro Ser
          1045          1050          1055
Ser Thr Pro Thr Gly Thr Thr Val Val Lys Val Thr Pro Asp Leu Lys
          1060          1065          1070
Pro Thr Glu Ala Ser Ser Ser Ala Phe Arg Leu Met Pro Ala Leu Gly
          1075          1080          1085
Val Ser Val Ala Asp Gln Lys Gly Lys Ser Thr Val Ala Ser Ser Glu
          1090          1095          1100
Ala Lys Pro Ala Ala Thr Ile Arg Ile Val Gln Gly Leu Gly Val Met
          1105          1110          1115          1120
Pro Pro Lys Ala Gly Gln Thr Ile Thr Val Ala Thr His Ala Lys Gln
          1125          1130          1135
Gly Ala Ser Val Ala Ser Gly Ser Gly Thr Val His Thr Ser Ala Val
          1140          1145          1150
Ser Leu Pro Ser Met Asn Ala Ala Val Ser Lys Thr Val Ala Val Ala
          1155          1160          1165
Ser Gly Ala Ala Ser Thr Pro Ile Ser Ile Ser Thr Gly Ala Pro Thr
          1170          1175          1180
Val Arg Gln Val Pro Val Ser Thr Thr Val Val Ser Thr Ser Gln Ala
          1185          1190          1195          1200
Gly Lys Leu Pro Thr Arg Ile Thr Val Pro Leu Ser Val Ile Ser Gln
          1205          1210          1215
Pro Met Lys Gly Lys Ser Val Val Thr Ala Pro Ile Ile Lys Gly Asn
          1220          1225          1230
Leu Gly Ala Asn Leu Ser Gly Leu Gly Arg Asn Ile Ile Leu Thr Thr
          1235          1240          1245
Met Pro Ala Gly Thr Lys Leu Ile Ala Gly Asn Lys Pro Val Ser Phe
          1250          1255          1260
Leu Thr Ala Gln Gln Leu Gln Gln Leu Gln Gln Gly Gln Ala Thr
          1265          1270          1275          1280
Gln Val Arg Ile Gln Thr Val Pro Ala Ser Xaa Leu Gln Gln Gly Thr
          1285          1290          1295
Ala Ser Gly Ser Ser Lys Ala Val Ser Thr Val Val Val Thr Thr Ala
          1300          1305          1310
Pro Ser Pro Lys Gln Ala Pro Glu Gln Gln
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<210> 4829

<211> 1605

<212> DNA

<213> Homo sapiens

<400> 4829

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120
ggggatatgg ttctttttaga acctctcaat gaggagacct tcatcaacaa cctcaagaag
180
cgctttgacc acagtgaaat atacacttac attggaagtg tggttatata tgtaaccca
240
tatcgggtctt taccatttta ttcaccagag aaagtggaag aatacaggaa cagaaatttt
300
tatgaactga gccctcacat ctttgccctt tcggatgaag catacagatc cctacgagat
360
caagataagg accaatgtat tctcattact ggggaaagtg gagcaggaaa aacagaggcc
420
agtaagcttg tcatgtccta tgtggcagct gtttgtggaa aaggagcaga agttaatcaa
480
gttaaagaac agctttttaca gtccaacccg gtccctggaag cttttggaaa tgccaaaact
540
gtaaggaatg acaactcctc tagatttggc aaatatatgg atattgaatt tgactttaaa
600
ggcgatccac taggaggagt aataagtaac tatcttttag agaaatctcg ggttggttaa
660
cagccaagag gtgaaagaaa cttccatgtg ttctatcagc tgctctctgg tgcctctgaa
720
gagtcctca ataaacttaa gcttgagagg gatttcagca ggtataacta cctgagtctg
780
gattcggcca aagtgaatgg agtgatgat gcagcaaatt ttagaaccgt gcggaatgcc
840
atgcagattg tgggctttat ggatcatgaa gctgagtctg tcttggcggt ggtggcagca
900
gtgttgaaac tggggaacat tgagttcaag cccgaatctc gagtgaatgg tctagatgaa
960
agcaaatca aagataaaaa tgagttaaaa gaaatttggtg aattgaccgg cattgatcaa
1020
tcagttctag aacgagcatt cagtttccga acagttgagg ccaaacagga gaaagtttca
1080
actacactga atgtggctca ggcttattat gcccgatg ctctggctaa aaacctctac
1140
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1200
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1260
agctttgagc agttcattat taattattgt aacgaaaagc tgcaacaaat cttcattgaa
1320
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1380
gactacttca ataattgctat catttgtgac ctaatagaaa ataacacaaa tggaatcctg
1440
gccatgttgg atgaagagt cctcagacct ggcacagtca ctgatgagac cttcttagaa
1500
aagctgaacc aagtatgtgc caccaccag cattttgaaa gcaggatgag caagtgtctc
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1605

<210> 4830
 <211> 512
 <212> PRT
 <213> Homo sapiens

<400> 4830
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 Val Gly Asp Met Val Leu Leu Glu Pro Leu Asn Glu Glu Thr Phe Ile
 20 25 30
 Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
 35 40 45
 Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
 50 55 60
 Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
 65 70 75 80
 Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
 85 90 95
 Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
 100 105 110
 Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
 115 120 125
 Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
 130 135 140
 Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
 145 150 155 160
 Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
 165 170 175
 Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
 180 185 190
 Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
 195 200 205
 Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
 210 215 220
 Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
 225 230 235 240
 Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
 245 250 255
 Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
 260 265 270
 Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
 275 280 285
 Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
 290 295 300
 Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
 305 310 315 320
 Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
 325 330 335
 Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
 340 345 350
 Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
 355 360 365
 Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

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      370      375      380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385      390      395      400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405      410      415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420      425      430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435      440      445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450      455      460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465      470      475      480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
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Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
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<210> 4831
 <211> 578
 <212> DNA
 <213> Homo sapiens

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<400> 4831
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120
ggcgccgagc acggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acgcggccgg ccaagtgagg cccggagacc ccggcccag ggcgccaggc ctgagcccca
360
tgctcccag caaccagggc ccgcgggtgt ggccccacc agcccaggcc tggactctcc
420
tcagttctgt gtcgtgttcg ggtttttctt ctgtgactgg gccgtcttgg tgtctcgtgg
480
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578

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<210> 4832
 <211> 105
 <212> PRT
 <213> Homo sapiens

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<400> 4832
Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
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Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

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			20					25					30				
Pro	His	Phe	Asn	Lys	His	Leu	Leu	Gly	Ala	Glu	His	Gly	Asp	Glu	Pro		
		35					40					45					
Arg	His	Gly	Gly	Leu	Thr	Leu	Arg	Leu	Gly	Leu	His	Gln	Gln	Ser	Val		
	50					55					60						
Leu	Gly	Gly	Gln	Asp	Gln	Leu	Arg	Val	Arg	Val	Thr	Glu	Leu	Glu	Asp		
65					70				75						80		
Glu	Val	Arg	Asn	Leu	Arg	Lys	Ile	Asn	Arg	Asp	Leu	Phe	Asp	Phe	Ser		
			85						90						95		
Thr	Arg	Phe	Ile	Thr	Arg	Pro	Ala	Lys									
			100					105									

<210> 4833

<211> 872

<212> DNA

<213> Homo sapiens

<400> 4833

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120
ctcaacaact gagatgaacg tcgactcgct tgcaggcaag ttgtcactca gcagcgatct
180
gaactatatc ctgggttcca gaaaaggcag aggttcttac cgaaagcagg ggaggaagcc
240
gcagcccaag gaggtcgta cttgccggga aggtggctcg ggccaggctg cactcaaaac
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360
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420
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540
aaccagcatg ggaaagccat gtacaaagga atgacgact gcctgatgaa gacggctcgg
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720
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780
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cgtccatcat cagggtcgg cctcagcacc ct
872

<210> 4834

<211> 147

<212> PRT

<213> Homo sapiens

<400> 4834

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Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
      20           25           30
Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
      35           40           45
Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
      50           55           60
Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
65           70           75           80
Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
      85           90           95
Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
      100          105          110
Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
      115          120          125
Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
      130          135          140
Leu Ser Thr
145

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<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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120
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ggggctgacc gggctgatgt ggccgatgtt ctggggacag ctctagagga gctgaaccgc
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660
cctggtgatg ctgcggcagc cctgacctg ctgctactgt atgagccgcg ccaggcccag
720
cgcgtggccc atgcagatgt cttcgacact gtcaaggccc acgtggcaga gctggagcgg
780

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cgtttcccccgtgtgcccgggtgccatggctc agtgtgcaga cagccgcacc ctcaccactg
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 900
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 960
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 1020
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 1260
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 1846

<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

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			20					25				30			
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35					40				45				
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50					55				60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65					70				75				80		
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

85								90					95				
Cys	Pro	Leu	Arg	Gly	Ala	Asp	Arg	Ala	Asp	Val	Ala	Asp	Val	Leu	Gly		
100								105				110					
Thr	Ala	Leu	Glu	Glu	Leu	Asn	Arg	Arg	Tyr	His	Pro	Ala	Leu	Arg	Leu		
115				120				125									
Gln	Lys	Gln	Gln	Leu	Val	Asn	Gly	Tyr	Arg	Arg	Phe	Asp	Pro	Ala	Arg		
130				135				140									
Gly	Met	Glu	Tyr	Thr	Leu	Asp	Leu	Gln	Leu	Glu	Ala	Leu	Thr	Pro	Gln		
145				150				155				160					
Gly	Gly	Arg	Arg	Pro	Leu	Thr	Arg	Arg	Val	Gln	Leu	Leu	Arg	Pro	Leu		
165				170				175									
Ser	Arg	Val	Glu	Ile	Leu	Pro	Val	Pro	Tyr	Val	Thr	Glu	Ala	Ser	Arg		
180				185				190									
Leu	Thr	Val	Leu	Leu	Pro	Leu	Ala	Ala	Ala	Glu	Arg	Asp	Leu	Ala	Pro		
195				200				205									
Gly	Phe	Leu	Glu	Ala	Phe	Ala	Thr	Ala	Ala	Leu	Glu	Pro	Gly	Asp	Ala		
210				215				220									
Ala	Ala	Ala	Leu	Thr	Leu	Leu	Leu	Tyr	Glu	Pro	Arg	Gln	Ala	Gln			
225				230				235				240					
Arg	Val	Ala	His	Ala	Asp	Val	Phe	Ala	Pro	Val	Lys	Ala	His	Val	Ala		
245				250				255									
Glu	Leu	Glu	Arg	Arg	Phe	Pro	Gly	Ala	Arg	Val	Pro	Trp	Leu	Ser	Val		
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Gln	Thr	Ala	Ala	Pro	Ser	Pro	Leu	Arg	Leu	Met	Asp	Leu	Leu	Ser	Lys		
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Lys	His	Pro	Leu	Asp	Thr	Leu	Phe	Leu	Leu	Ala	Gly	Pro	Asp	Thr	Val		
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Leu	Thr	Pro	Asp	Phe	Leu	Asn	Arg	Cys	Arg	Met	His	Ala	Ile	Ser	Gly		
305				310				315				320					
Trp	Gln	Ala	Phe	Phe	Pro	Met	His	Phe	Gln	Ala	Phe	His	Pro	Ala	Val		
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<211> 906

<212> DNA

<213> Homo sapiens

<400> 4837

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 50 55 60
 Asn Leu Thr Asn Gly Ser Asn Gly Arg Asn Thr Glu Ser Pro Ala Ala
 65 70 75 80
 Ile His Pro Cys Gly Asn Pro Thr Val Ile Glu Asp Ala Leu Asp Lys
 85 90 95
 Ile Lys Ser Asn Asp Pro Asp Thr Thr Glu Val Asn Leu Asn Asn Ile
 100 105 110
 Glu Asn Ile Thr Thr Gln Thr Leu Thr Arg Phe Ala Glu Ala Leu Lys
 115 120 125
 Asp Asn Thr Val Val Lys Thr Phe Ser Leu Ala Asn Thr His Ala Asp
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 195 200 205
 Ile Val Lys Leu Leu Lys Glu Asn Thr Thr Leu Leu Arg Leu Gly Tyr
 210 215 220
 His Phe Glu Leu Pro Gly Pro Arg Met Ser Met Thr Ser Ile Leu Thr

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Arg	Asn	Met	Asp	Lys	Gln	Arg	Gln	Lys	Arg	Leu	Gln	Glu	Gln	Lys	Gln
			245			250								255	
Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
		260				265							270		
Arg	Gly	Thr	Pro	Ser	Pro	Ser	Pro	Tyr	Val	Ser	Pro	Arg	His	Ser	Pro
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1140

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			20					25					30		
Asp	Pro	Gly	Thr	Ser	Pro	Ser	Ser	Ser	Pro	Gly	Pro	Pro	Gly	Pro	Asp
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Cys Pro Glu Gln Ser Leu Arg Asp Ala Ile Thr Leu Asp Leu Phe Cys
      35           40           45
His Ala Leu Ile Phe Cys Arg Gln Gln Gly Phe Ser Leu Glu Gln Thr
      50           55           60
Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His Lys Ala Cys Ile Gly
65           70           75           80
His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
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<210> 4843

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<213> Homo sapiens

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 Pro Asp Cys Gly Phe Ser Trp Pro Leu Pro Glu Phe Asp Pro Ser Gln
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 Ile Arg Leu Ile Val Tyr Gln Asp Cys Glu Arg Arg Gly Arg Asn Val
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 Asp Leu Asn Thr Ile Tyr Ser Tyr Leu His Gly Met Glu Ile Leu Ser
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 115 120 125
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 Arg Cys Trp Tyr Ile Leu Leu Ser Gly Ser Val Leu Val Lys Gly Ser
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Asn Asn Thr His Leu Ala Leu Thr Val Lys Thr Asn Ile Phe Val Phe		670
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Gly Gly Leu Ser Gln Ser Gln Asp Asp Ser Ile Val Gly Thr Arg His		765
	770	775
Cys Arg His Ser Leu Ala Ile Met Pro Ile Pro Gly Thr Leu Ser Ser		780
785	790	795
Ser Ser Pro Asp Leu Leu Gln Pro Thr Thr Ser Met Leu Asp Phe Ser		800
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<210> 4851

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4851

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 180
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 240
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 480
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cagttttgta agattcagga aaaattagcc caattagagc ttgaaaataa ggaacttcga
 600
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 660
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 720
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<210> 4852

<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

Met	Ser	Cys	Thr	Ile	Glu	Lys	Ile	Leu	Thr	Asp	Ala	Lys	Thr	Leu	Leu
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			20				25						30		
Ser	Ala	Ala	Leu	His	Arg	Arg	Val	Ala	Ala	Met	Arg	Glu	Ala	Gly	Thr
			35				40					45			
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
		50				55				60					
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
65					70				75					80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85					90					95		
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
			100					105					110		
Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
		115					120					125			
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
			130				135				140				
Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
145					150				155					160	
Asp	Gln	Phe	Cys	Lys	Ile	Gln	Glu	Lys	Leu	Ala	Gln	Leu	Glu	Leu	Glu
			165					170					175		
Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
			180					185					190		
Ala	Arg	Lys	Glu	Asn	Ser	Met	Asp	Thr	Ala	Ser	Gln	Ala	Ile	Lys	
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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<210> 4854

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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	20	25	30
Glu Asn Pro Glu Gln Val Ala Ser Glu Gly Leu Pro Glu Pro Val Leu			
	35	40	45
Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala			
	50	55	60
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala			
65	70	75	80
Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu			
	85	90	95
His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala			
	100	105	110
Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa			
	115	120	125
Ala Ala Glu Arg His Trp Ala Gly Pro Ala Trp Gln His Pro Leu Ser			
	130	135	140
Ala Leu Ala Arg Arg Arg Cys Cys Pro Trp Pro Pro Gly Pro Thr Ser			
145	150	155	160
Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val			
	165	170	175
Ala Leu Thr Val Lys Leu Ala Gln Asp Asp Leu His Ile Met Asp Ser			
	180	185	190
Leu Glu Leu Pro Thr Gly Asp Pro Gln Tyr Leu Thr Glu Leu Ala His			
	195	200	205
Tyr Arg Arg Trp Gly Asp Ser Val Leu Leu Val Asp Leu Thr His Glu			
	210	215	220
Glu Met Pro Gln Ser Ile Val Glu Ala Thr Ser Arg Leu Lys Thr Phe			
225	230	235	240
Asn Leu Ile Pro Ala Val Gly Leu Asn Val His Ser Met Leu Lys His			
	245	250	255
Gln Thr Leu Val Leu Thr Leu Pro Thr Val Ala Phe Leu Glu Asp Lys			
	260	265	270
Leu Leu Trp Gln Asp Ser Arg Tyr Arg Pro Leu Tyr Pro Phe Ser Leu			
	275	280	285
Pro Tyr Ser Asp Phe Pro Arg Pro Leu Pro His Ala Thr Gln Gly Pro			
	290	295	300
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<210> 4855

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4855

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240

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 420
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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Ala	Thr	Ala	Ala	Pro	Ala	Gly	Gly	Phe	Gly	Gly	Phe	Gly	Thr	Thr	Ser
		20					25					30			
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
		35				40					45				
Thr	Thr	Gly	Leu	Phe	Gly	Gly	Thr	Gln	Asn	Lys	Gly	Phe	Gly	Phe	Gly
	50				55					60					
Thr	Gly	Phe	Gly	Thr	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly
65				70					75					80	
Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln
			85					90					95		
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
		100					105					110			
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
		115					120					125			
Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln
	130					135					140				
Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
145				150					155					160	
Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
			165					170					175		
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
		180					185						190		
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
		195					200					205			
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
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<210> 4857

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 4857

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1380

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<210> 4858

<211> 269

<212> PRT

<213> Homo sapiens

<400> 4858

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      35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
      50           55           60
Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
      85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
      100          105          110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
      115          120          125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
      130          135          140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
145          150          155          160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
      165          170          175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
      180          185          190
Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
      195          200          205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
      210          215          220
Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
225          230          235          240
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<210> 4859

<211> 689

<212> DNA

<213> Homo sapiens

<400> 4859

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240

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<210> 4860

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4860

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Trp	Thr	Leu	Asp	Leu	Glu	Pro	Arg	Gly	Pro	Val	His	Ile	His	Pro	Thr
			20					25					30		
Arg	Val	Ser	Gly	Gly	Leu	Pro	Arg	Cys	Leu	Cys	Trp	Val	Ala	Val	Val
		35					40				45				
Val	Pro	Arg	Gly	Met	Glu	Cys	Pro	Gly	Leu	Leu	Gln	Glu	Leu	Ser	Thr
	50					55					60				
Gln	Gly	Gln	Gly	Glu	Pro	Arg	Glu	Lys	Arg	Pro	Gly	Leu	Leu	Ser	Phe
65					70				75						80
Leu	Ile	Cys	Ser	Cys	Pro	Pro	Leu	Ser	Ser	Thr	Pro	Leu	Pro	Phe	Pro
				85					90					95	
Arg	Leu	Ser	Pro	Pro	Trp	Ala	Phe	Val	Cys	Phe	Gly	Arg	Cys	His	Leu
			100					105					110		
Thr	Arg	Thr	Leu	Ile	Phe	Asn	Pro	Ile	Pro	Leu	Pro	Pro	Thr	Leu	Pro
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His	Phe	Asp	Leu	Ile	Leu	Trp	Leu	Trp	Ala	Glu	Ala	Ser	Gln	Gly	Ser
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Trp	Val	Gly	Trp	Val	Leu	Arg	Pro	Pro	Gln	Thr	Ser	Thr	Glu	Thr	Cys
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<210> 4861

<211> 1622

<212> DNA

<213> Homo sapiens

<400> 4861

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1320
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1380
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1620
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1622

<210> 4862
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 4862
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 Gly Tyr Leu Lys Leu Val Cys Val Ser Phe Gln Arg Gln Gly Phe His
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 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp
 35 40 45
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
 50 55 60
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
 65 70 75 80
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
 85 90 95
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
 100 105 110
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
 115 120 125
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
 130 135 140
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
 145 150 155 160
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
 165 170 175
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
 180 185 190
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
 195 200 205
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
 210 215 220
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
 225 230 235 240
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly
 245 250 255
 Thr Val Lys Gln
 260

<210> 4863
 <211> 355
 <212> DNA
 <213> Homo sapiens

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 120
 accatcaacc ctgaggacga cacggatcct ggccatgctg acctggtcct ctatatcact
 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtgc ggggcgtcac ccagctgggc
 240
 ggggcctgct ccccaacctg gagctgcctc attaccgagg aactggctt cgacctggga
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 355

<210> 4864
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4864
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 20 25 30
 Leu Ser Val Cys Gly Trp Ser Gln Thr Ile Asn Pro Glu Asp Asp Thr
 35 40 45
 Asp Pro Gly His Ala Asp Leu Val Leu Tyr Ile Thr Arg Phe Asp Leu
 50 55 60
 Glu Leu Pro Asp Gly Asn Xaa Ala Val Arg Gly Val Thr Gln Leu Gly
 65 70 75 80
 Gly Ala Cys Ser Pro Thr Trp Ser Cys Leu Ile Thr Glu Asp Thr Gly
 85 90 95
 Phe Asp Leu Gly Val Thr Ile Ala His Glu Ile Gly His Ser Phe Gly
 100 105 110
 Leu Glu His Asp Gly Ala
 115

<210> 4865
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 4865
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 120
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 180
 ccctacaagt gcccacattg tggcaaggcc ttcggcgaca gtcctacct cctgcgacac
 240
 cagcgcaccc acagccacga ggggccttac agctgcaccg agtgcgggcaa gtgctatagc
 300
 cagaactcgt ccctgcgcag ccatcagagg gtgcacaccg gtcagaggcc ctacagctgt
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 420
 gcccgggaga agcccttcac gcgt
 444

<210> 4866

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4866
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 20 25 30
 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
 35 40 45
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
 50 55 60
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
 65 70 75 80
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
 85 90 95
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
 100 105 110
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
 115 120 125
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
 130 135 140
 Pro Phe Thr Arg
 145

<210> 4867
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 4867
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 120
 ccttctccac atccccattc tggtaggaaa agtcacccat gccaggatat cccagccca
 180
 gagacagccc cagggggtgc tgctggaga cagccgggat agcttcagtc tctgaccct
 240
 gacacgggct gcaccaccag acaatgggca ttttcaggcc agactctggc acaaagagaa
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 360
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 391

<210> 4868
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4868
 Met Gly Val Glu Arg Tyr Leu Leu His Pro Ser Gln Leu Leu Arg Ser

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Leu Trp Ala Ile Ala Leu Ala Leu Pro Leu Leu Phe Val Pro Glu Ser
      20           25           30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35           40           45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50           55           60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65           70           75           80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85           90           95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100          105          110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115          120          125

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<210> 4869

<211> 418

<212> DNA

<213> Homo sapiens

<400> 4869

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120
caggactgca cggactgcct ggggaggggt ctttggtccc cgggttcctg cagggggggt
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cggggaggcc ctgtgagcag ttggtcacag gtgggtccca ttcgatgcga tcctgttcct
240
ccccaacagc cctggagaag ggggacgttg cctgctgtgg ctgcggtgtg tttcctggcc
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418

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<210> 4870

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4870

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Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
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Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20           25           30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35           40           45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50           55           60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65           70           75           80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

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				85					90					95		
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu	
			100					105					110			
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val				
		115					120					125				

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<210> 4871
<211> 1354
<212> DNA
<213> Homo sapiens
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<400> 4871
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120
cagccctca ggccatgctg ctgctcagct gcatggcaaa gtccctgcaca tgctccttca
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240
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480
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540
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600
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780
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1140
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1260

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 1320
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 1354

<210> 4872
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 4872
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 Gln Pro Leu Arg Pro Cys Cys Cys Ser Ala Ala Trp Gln Ser Pro Ala
 20 25 30
 His Ala Pro Ser Glu Ser Gly Gly His Leu Pro Val Pro Ala Ser Pro
 35 40 45
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala
 50 55 60
 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His
 65 70 75 80
 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu
 85 90

<210> 4873
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 4873
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 120
 ccactgtgag ttgaactctt tcgtgttgac cggccactct ccgtgctctg gatgatgtcg
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 240
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 420
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 480
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 540
 aacaaagtgc gatggtaaga acagaccagg gtgccggggc cttcaggtca cttgggggaga
 600
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 660
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 720

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 780
 aagccggccc atacaccttt tctttggaac taaccaccca gatcttagaa gatgtacacg
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<210> 4874

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4874

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Asp	Leu	Ser	Pro	Asp	His	Pro	Gly	Thr	Glu	Leu	Trp	Asp	Ser	Val	Val
			20					25					30		
Leu	Glu	Asn	His	Val	Val	Thr	Asp	Glu	Asp	Glu	Pro	Ala	Leu	Lys	Arg
		35					40					45			
Gln	Arg	Leu	Glu	Ile	Asn	Cys	Gln	Asp	Pro	Ser	Ile	Lys	Ser	Phe	Leu
	50					55					60				
Tyr	Ser	Ile	Asn	Gln	Thr	Ile	Cys	Leu	Arg	Leu	Asp	Ser	Ile	Glu	Ala
65				70					75					80	
Lys	Leu	Gln	Ala	Leu	Glu	Ala	Thr	Cys	Lys	Ser	Leu	Glu	Glu	Lys	Leu
			85					90					95		
Asp	Leu	Val	Thr	Asn	Lys	Gln	His	Ser	Pro	Ile	Gln	Val	Pro	Met	Val
			100					105					110		
Ala	Gly	Ser	Pro	Leu	Arg	Thr	Thr	Gln	Met	Cys	Asn	Lys	Val	Arg	Trp
		115					120					125			

<210> 4875

<211> 1255

<212> DNA

<213> Homo sapiens

<400> 4875

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 180
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 420
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<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

Leu	Ala	Trp	Val	Glu	Met	Ile	Val	His	Pro	Val	Leu	Asp	Ser	Pro	Asn
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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
			20					25					30		
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln
		35				40					45				
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50				55						60				
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65				70					75					80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
			85					90						95	
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
		100				105						110			
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
	115				120						125				
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130				135					140					
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
145				150					155					160	
Ser	Gly	Ser	Leu	Gly	Val	Leu	Val	His	Trp	Ala	Leu	Leu	Ala	Gly	Pro

	165		170		175										
Gln	Lys	Thr	Asn	Gly	Ser	Ser	Pro	Leu	Leu	Val	Ala	Ala	Phe	Gly	Ala
	180		185		190										
Cys	Ser	Leu	Thr	Arg	Gln	Cys	Asn	His	Gln	Ala	Phe	Gln	Lys	His	Gly
	195		200		205										
Arg	Ser	Thr	Thr	Thr	Ser	Asp	Met	Ile	Ala	Glu	Val	Gly	Ala	Ala	Phe
	210		215		220										
Ser	Lys	Leu	Phe	Glu	Thr										
225					230										

<210> 4877

<211> 1182

<212> DNA

<213> Homo sapiens

<400> 4877

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1140

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1182

<210> 4878

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4878

Met	Ala	Val	Ser	His	Ser	Val	Lys	Glu	Arg	Thr	Ile	Ser	Glu	Asn	Ser
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Leu	Ile	Ile	Leu	Leu	Gln	Gly	Leu	Gln	Gly	Arg	Val	Thr	Thr	Val	Asp
			20					25					30		
Leu	Arg	Asp	Glu	Ser	Val	Ala	His	Gly	Arg	Ile	Asp	Asn	Val	Asp	Ala
		35					40					45			
Phe	Met	Asn	Ile	Arg	Leu	Ala	Lys	Val	Thr	Tyr	Thr	Asp	Arg	Trp	Gly
	50					55				60					
His	Gln	Val	Lys	Leu	Asp	Asp	Leu	Phe	Val	Thr	Gly	Arg	Asn	Val	Arg
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Tyr	Val	His	Ile	Pro	Asp	Asp	Val	Asn	Ile	Thr	Ser	Thr	Ile	Glu	Gln
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Gln	Leu	Gln	Ile	His	Arg	Val	Arg	Asn	Phe	Gly	Gly	Lys	Gly	Gln	
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Gly	Arg	Trp	Glu	Phe	Pro	Pro	Lys	Lys	Leu						
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<210> 4879

<211> 1941

<212> DNA

<213> Homo sapiens

<400> 4879

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360
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480
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540
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 1200
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 1941

<210> 4880

<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

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		35					40					45				
Ala	Thr	Ala	Ser	Gly	Pro	His	Val	Lys	Ser	His	Leu	Thr	Arg	Val	Val	
	50					55					60					
Thr	Thr	Val	Leu	Phe	Trp	Gly	Phe	Ser	Lys	Ala	Ser	Pro	Val	Val	Leu	
65					70					75					80	
Arg	Gly	His	Ser	Glu	Gln	Ala	Asn	Thr	Ala	Arg	Val	Thr	His	Tyr	Thr	
				85					90					95		
Gln	Arg	Lys	Asp	Asn	Glu	Gln	Met	Ala	Ile	Val	Glu	Asn	Ser	Val	Val	
			100					105					110			
Cys	Phe	Ser	Asn	Ala	Thr	Tyr	Phe	Ser	Arg	Gln	Val	Ile	Leu	Pro	Met	
		115					120					125				
Met	Thr	Ser	Ala	Thr	Lys	Leu	Arg	Ala	Arg	Gly	Leu	Pro	Met	Arg	Leu	
	130					135					140					
Val	Glu	Ser	Asn	His	Val	Cys	Ser	Glu	Ala	Ser	Gly	Pro	Ser	Arg	Pro	
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Cys	His	Arg	Pro	Glu	His	Arg	Thr	Val	Ile	Met	Gln	Arg	Ala	Val	Thr	
				165					170					175		
Glu	Ala	Gly	Val	Ser	Val	Gly	Gly	Gly	Glu	Glu	Gly	Thr	Ser	Ala	Phe	
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<210> 4881
<211> 1333
<212> DNA
<213> Homo sapiens
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240
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360
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480
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540
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600
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720
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 840
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 960
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 1333

<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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			20					25					30		
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35					40					45			
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
		50				55					60				
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65					70					75					80
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
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Leu	Ser	Gly	Arg												
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<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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 180
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 240
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 480
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 540
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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
		20					25				30				
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
	35						40					45			


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Ile Ser Asn Leu Gln Lys Leu Ile Ser Leu Asp Leu Tyr Asp Asn Gln
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Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65                      70                      75                      80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
                      85                      90                      95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
          100                      105                      110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
          115                      120                      125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
          130                      135                      140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145                      150                      155                      160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
          165                      170                      175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
          180                      185                      190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
          195                      200                      205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
          210                      215                      220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225                      230                      235                      240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
          245                      250                      255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
          260                      265                      270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
          275                      280                      285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
          290                      295                      300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305                      310                      315                      320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
          325                      330                      335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
          340                      345                      350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
          355                      360                      365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
          370                      375                      380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
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<210> 4885

<211> 489

<212> DNA

<213> Homo sapiens

<400> 4885

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 240
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 300
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<210> 4886

<211> 77

<212> PRT

<213> Homo sapiens

<400> 4886

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Asn	Pro	Met	Gln	Val	Phe	Gln	Gly	Phe	Met	Ser	Phe	Lys	Asp	Val	Ala
			20				25					30			
Val	Asn	Phe	Thr	Arg	Xaa	Glu	Trp	Arg	Glu	Leu	Asp	Leu	Ala	Gln	Arg
		35				40				45					
Val	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser
	50				55				60						
Leu	Val	Gly	Phe	Pro	Phe	Ser	Lys	Pro	Gly	Ile	Ile	Ser			
65				70					75						

<210> 4887

<211> 2271

<212> DNA

<213> Homo sapiens

<400> 4887

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 120
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 300
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 360

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 2271

<210> 4888

<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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		20						25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
		35					40					45			
Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
		50					55				60				
Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75					80
Asn	Ser	His	Thr	Thr	Asn	Pro	Glu	Gln	Thr	Leu	Pro	Gly	Thr	Asn	Leu
			85						90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
		115					120					125			
Leu	Met	Ser	Leu	Ala	Thr	Glu	Asp	Asn	Phe	Asp	Pro	Ile	Asp	Val	Ser
		130					135				140				
Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
145						150				155					160
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
			165						170					175	
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
			180					185					190		
His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
		195					200					205			
Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
		210				215					220				
Thr	Phe	Gln	His	Val	Phe	His	Asn	His	Thr	Tyr	His	Leu	Gln	Pro	Thr
225						230				235					240
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Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys				
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Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile				
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Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu				
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<211> 619

<212> DNA

<213> Homo sapiens

<400> 4889

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<212> PRT

<213> Homo sapiens

<400> 4890

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Arg Thr Gly Gln Pro Gln Pro Ala Pro Thr Arg Val Asn Ile Ser Arg			
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Pro Ser Pro Thr Leu Phe Pro Asp Ser Gln Gln Thr Asp Val Gly Ser			
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Arg Thr Asp Pro Phe Thr His Thr His Thr His Ser His Ser Phe Ala			
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His Ile His Ser Cys Thr His Ala Met Tyr			
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<210> 4892

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4892

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<212> DNA

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<211> 399

<212> PRT

<213> Homo sapiens

<400> 4894

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Ser Gly Ser Glu Val Ser Gln Arg Val His Pro Ser Asp Leu Glu Gly		205
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Pro Pro Leu Pro Ser Ser Pro Pro Pro Ser Ser Val Asn Arg Arg Leu		300
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Tyr Ala Gln Thr Lys Leu Gly Leu Thr Arg Thr Leu Ser Glu Glu Asn		350
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<212> DNA

<213> Homo sapiens

<400> 4895

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<210> 4896

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4896

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<210> 4897

<211> 1733

<212> DNA

<213> Homo sapiens

<400> 4897

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420
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<210> 4898
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 4898
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 Ser Ser Trp Asp Tyr Arg Arg Pro Arg Cys Pro Ala Asn Phe Cys
 35 40 45
 Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln
 50 55 60
 Thr Pro Asp Xaa Thr Arg Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg
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 Arg Glu Pro Pro Arg Pro Gly Asp Leu Trp Asn Phe
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<210> 4899
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 4899
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<210> 4900
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4900
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Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser			
35	40	45	
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln			
50	55	60	
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala			
65	70	75	80
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser			
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Val Leu Thr Lys Glu Ala Leu Gly Val Ala Val Pro Ala Pro Met Gly			
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Leu Leu Leu Gly Arg Gly			
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<210> 4901

<211> 1520

<212> DNA

<213> Homo sapiens

<400> 4901

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960

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<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

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			20					25					30		
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
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Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65					70				75					80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
			85					90					95		
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
		100						105				110			
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
	115					120					125				
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
	130					135					140				
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145					150				155					160	
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
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			180												

<210> 4903

<211> 1064

<212> DNA

<213> Homo sapiens

<400> 4903

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 aatgccaaagg ccttgtatcg ggccggagtg gcctttttcc atctgcagga ctatgaccag
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 780
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 960
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<210> 4904

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4904

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 20 25 30
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
 35 40 45
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

50		55		60
Gln Leu Tyr Lys Glu	Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr			
65	70	75	80	
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly				
	85	90	95	
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr				
100	105			

<210> 4905
 <211> 615
 <212> DNA
 <213> Homo sapiens

<400> 4905
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<210> 4906
 <211> 144
 <212> PRT
 <213> Homo sapiens

<400> 4906
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 20 25 30
 Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
 35 40 45
 Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
 50 55 60
 Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
 65 70 75 80
 Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

				85				90					95		
Pro	Arg	Gly	Ser	Pro	Ala	Ser	Ala	Leu	Val	Leu	Ala	Phe	Gly	Gly	Asn
			100					105					110		
Pro	Leu	His	Cys	Asn	Cys	Glu	Leu	Val	Trp	Leu	Arg	Arg	Leu	Ala	Arg
		115					120					125			
Glu	Asp	Asp	Leu	Glu	Ala	Cys	Ala	Ser	Pro	Pro	Ala	Leu	Gly	Gly	Arg
	130					135					140				

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<210> 4907
<211> 1748
<212> DNA
<213> Homo sapiens
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180
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 1748

<210> 4908
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 4908
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 Leu Pro Ala Gly Pro Ala Ser Ala Phe Pro Pro Ala Glu Arg Ser Arg
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 Gly His Arg Arg Ala Ser Leu
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<210> 4909
 <211> 1960
 <212> DNA
 <213> Homo sapiens

<400> 4909
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<210> 4910
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 4910

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			20					25					30		
Phe	Met	Pro	Ile	Leu	Met	Glu	Lys	Glu	Glu	Glu	Gly	Met	Leu	Ser	Pro
		35					40					45			
Ile	Leu	Ala	His	Gly	Gly	Val	Arg	Phe	Met	Trp	Ile	Lys	His	Asn	Asn
50						55					60				
Leu	Tyr	Leu	Val	Ala	Thr	Ser	Lys	Lys	Asn	Ala	Cys	Val	Ser	Leu	Val
65					70					75					80
Phe	Ser	Phe	Leu	Tyr	Lys	Val	Val	Gln	Val	Phe	Ser	Glu	Tyr	Phe	Lys
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Arg	Gly	Lys	Ser	Lys	Ser	Val	Glu	Leu	Glu	Asp	Val	Lys	Phe	His	Gln
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Asp	Ser	Pro	Arg	Phe	Lys	Thr	Ser	Val	Gly	Ser	Ala	Lys	Tyr	Val	Pro
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Glu	Tyr	Leu	Met	Arg	Ala	His	Phe	Gly	Leu	Pro	Ser	Val	Glu	Lys	Glu
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<210> 4911

<211> 1862

<212> DNA

<213> Homo sapiens

<400> 4911

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<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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			20					25					30		
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405							410					415				
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420							425					430				
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<211> 2090

<212> DNA

<213> Homo sapiens

<400> 4913

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<210> 4914

<211> 529

<212> PRT

<213> Homo sapiens

<400> 4914

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			20					25					30		
Asn	Pro	Asn	Pro	Leu	Ile	Asn	Val	Arg	Asp	Arg	Leu	Phe	His	Ala	Leu
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Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
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Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
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Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
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Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
			100					105					110		
Val	Glu	Val	Arg	His	Asn	Ser	Ser	Arg	Ala	Pro	Val	Phe	Leu	Gln	Phe
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	210					215					220				
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	290					295					300				
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Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
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<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

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			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
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<212> DNA

<213> Homo sapiens

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 1440
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<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

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			20					25					30		
Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
		35					40					45			
Ala	Ala	Gly	Ala	Gly	Arg	Gly	Gly	Ala	Arg	Ala	Val	Arg	Val	Asp	Val
	50					55				60					
Arg	Leu	Pro	Arg	Gln	Asp	Ala	Leu	Val	Leu	Glu	Gly	Val	Arg	Ile	Gly

65	70										75					80			
Ser	Glu	Ala	Asp	Pro	Ala	Pro	Leu	Leu	Gly	Gly	Arg	Leu	Leu	Leu	Met				
				85					90					95					
Asp	Val	Val	Asp	Ala	Glu	Gln	Glu	Ala	Pro	Ala	Asp	Gly	Trp	Ile	Ala				
			100					105					110						
Val	Ala	Tyr	Val	Gly	Lys	Glu	Gln	Ala	Ala	Gln	Phe	His	Gln	Glu	Asn				
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Lys	Gly	Ser	Gly	Pro	Gln	Ala	Tyr	Pro	Lys	Ala	Leu	Val	Gln	Gln	Met				
	130					135					140								
Arg	Arg	Ala	Leu	Phe	Leu	Gly	Ala	Ser	Ala	Leu	Leu	Leu	Leu	Ile	Leu				
145					150					155					160				
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			165						170						175				
Pro	Val	Ile	Val	Leu	His	Tyr	Ser	Ser	Asn	Val	Thr	Lys	Leu	Leu	Asp				
		180						185					190						
Ala	Leu	Leu	Gln	Arg	Thr	Gln	Ala	Thr	Ala	Glu	Ile	Thr	Ser	Gly	Glu				
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Ser	Leu	Ser	Ala	Asn	Ile	Glu	Trp	Lys	Leu	Thr	Leu	Trp	Thr	Thr	Cys				
	210					215					220								
Gly	Leu	Ser	Lys	Asp	Gly	Tyr	Gly	Gly	Trp	Gln	Asp	Leu	Val	Cys	Leu				
225					230					235					240				
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			245						250					255					
Ala	Ile	Leu	Leu	Val	Ala	Met	Leu	Leu	Cys	Thr	Gly	Leu	Val	Val	Gln				
		260					265						270						
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		275				280						285							
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	290					295					300								
Thr	Arg	Arg	Cys	Arg	Leu	Ser	Arg	Ala	Ala	Gln	Gly	Leu	Pro	Asp	Pro				
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Gly	Ala	Glu	Thr	Cys	Ala	Val	Cys	Leu	Asp	Tyr	Phe	Cys	Asn	Lys	Gln				
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<210> 4919

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 4919.

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240

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300

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 780
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 1200
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 1260
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<210> 4920

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
		35					40				45				
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
	50					55				60					
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65				70					75					80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
			85					90					95		
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

	100		105		110										
Gln	Asp	Ser	Gly	Leu	Gln	Glu	Ser	Glu	Val	Ser	Ala	Glu	Asn	Ile	Leu
	115		120		125										
Thr	Val	Ala	Lys	Asp	Pro	Arg	Tyr	Ala	Arg	Tyr	Leu	Lys	Met	Val	Gln
	130		135		140										
Val	Gly	Val	Pro	Val	Met	Ala	Ile	Arg	Asn	Lys	Met	Ile	Ser	Glu	Gly
145			150		155				160						
Leu	Asp	Pro	Asp	Leu	Leu	Glu	Arg	Pro	Asp	Ala	Pro	Val	Pro	Asp	Gly
	165		170		175										
Glu	Ser	Glu	Lys	Thr	Val	Glu	Glu	Ser	Ser	Asp	Ser	Glu	Ser	Ser	Phe
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<210> 4921

<211> 1272

<212> DNA

<213> Homo sapiens

<400> 4921

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240
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420
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720
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1020

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 1140
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<210> 4922

<211> 342

<212> PRT

<213> Homo sapiens

<400> 4922

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		20					25					30		Phe
Val	Glu	Gln	Lys	Cys	Glu	Val	Phe	Asp	Asp	Glu	Glu	Glu	Ser	Lys
		35					40					45		Leu
Thr	Tyr	Thr	Glu	Ile	His	Gln	Glu	Tyr	Lys	Glu	Leu	Val	Glu	Lys
	50					55					60			Leu
Leu	Glu	Gly	Tyr	Leu	Lys	Glu	Ile	Gly	Ile	Asn	Glu	Asp	Gln	Phe
65					70					75				80
Glu	Ala	Cys	Thr	Ser	Pro	Leu	Ala	Lys	Thr	His	Thr	Ser	Gln	Ala
				85				90					95	Ile
Leu	Gln	Pro	Val	Leu	Ala	Ala	Glu	Asp	Phe	Thr	Ile	Phe	Lys	Ala
			100					105					110	Met
Met	Val	Gln	Lys	Asn	Ile	Glu	Met	Gln	Leu	Gln	Ala	Ile	Arg	Ile
		115					120					125		Ile
Gln	Glu	Arg	Asn	Gly	Val	Leu	Pro	Asp	Cys	Leu	Thr	Asp	Gly	Ser
	130					135					140			Asp
Val	Val	Ser	Asp	Leu	Glu	His	Glu	Glu	Met	Lys	Ile	Leu	Arg	Glu
145					150					155				160
Leu	Arg	Lys	Ser	Lys	Glu	Glu	Tyr	Asp	Gln	Glu	Glu	Glu	Arg	Lys
				165				170					175	Arg
Lys	Lys	Gln	Leu	Ser	Glu	Ala	Lys	Thr	Glu	Glu	Pro	Thr	Val	His
			180					185					190	Ser
Ser	Glu	Ala	Ala	Ile	Met	Asn	Asn	Ser	Gln	Gly	Asp	Gly	Glu	His
	195					200						205		Phe
Ala	His	Pro	Pro	Ser	Glu	Val	Lys	Met	His	Phe	Ala	Asn	Gln	Ser
	210					215					220			Ile
Glu	Pro	Leu	Gly	Arg	Lys	Val	Glu	Arg	Ser	Glu	Thr	Ser	Ser	Leu
225					230					235				240
Gln	Lys	Gly	Leu	Lys	Ile	Pro	Gly	Leu	Glu	His	Ala	Ser	Ile	Glu
			245					250						255
Pro	Ile	Ala	Asn	Leu	Ser	Val	Leu	Gly	Thr	Glu	Glu	Leu	Arg	Gln
			260					265					270	Arg
Glu	His	Tyr	Leu	Lys	Gln	Lys	Arg	Asp	Lys	Leu	Met	Ser	Met	Arg
	275						280					285		Lys
Asp	Met	Arg	Thr	Lys	Gln	Ile	Gln	Asn	Met	Glu	Gln	Lys	Gly	Lys
														Pro

290 295 300
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 305 310 315 320
 Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys
 325 330 335
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<210> 4923
 <211> 765
 <212> DNA
 <213> Homo sapiens

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<210> 4924
 <211> 255
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

50		55		60
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg				
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Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser				80
	85		90	95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg				
	100		105	110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly				
	115		120	125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg				
	130		135	140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser				
145		150		155
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala				
	165		170	175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro				
	180		185	190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser				
	195		200	205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile				
	210		215	220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser				
225		230		235
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val				
	245		250	255

<210> 4925

<211> 374

<212> DNA

<213> Homo sapiens

<400> 4925

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240

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374

<210> 4926

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4926

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			20					25					30				
Lys	Asp	Glu	Glu	Asp	Gly	Lys	Asp	Ser	Asp	Glu	Ala	Glu	Asp	Ala	Glu		
		35					40					45					
Leu	Tyr	Asp	Asp	Leu	Tyr	Cys	Pro	Ala	Cys	Asp	Lys	Ser	Phe	Lys	Thr		
	50					55					60						
Glu	Lys	Ala	Met	Lys	Asn	His	Glu	Lys	Ser	Lys	Lys	His	Arg	Glu	Met		
65					70					75					80		
Val	Ala	Leu	Leu	Lys	Gln	Gln	Leu	Glu	Glu	Glu	Glu	Glu	Asn	Phe	Ser		
				85				90					95				
Arg	Pro	Gln	Ile	Asp	Glu	Asn	Pro	Leu	Asp	Asp	Asn	Ser	Glu	Glu	Glu		
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<210> 4927

<211> 1649

<212> DNA

<213> Homo sapiens

<400> 4927

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960

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<210> 4928

<211> 405

<212> PRT

<213> Homo sapiens

<400> 4928

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			20					25					30		
Ile	Gln	Leu	Ser	Gly	Ala	Glu	Gln	Leu	Glu	Ala	Leu	Lys	Ala	Phe	Val
			35				40					45			
Glu	Ala	Met	Val	Asn	Glu	Asn	Val	Ser	Leu	Val	Ile	Ser	Arg	Gln	Leu
		50				55					60				
Leu	Thr	Asp	Phe	Cys	Thr	His	Leu	Pro	Asn	Leu	Pro	Asp	Ser	Thr	Ala
65					70					75				80	
Lys	Glu	Ile	Tyr	His	Phe	Thr	Leu	Glu	Lys	Ile	Gln	Pro	Arg	Val	Ile
			85						90				95		
Ser	Phe	Glu	Glu	Gln	Val	Ala	Ser	Ile	Arg	Gln	His	Leu	Ala	Ser	Ile
			100					105					110		
Tyr	Glu	Lys	Glu	Glu	Asp	Trp	Arg	Asn	Ala	Ala	Gln	Val	Leu	Val	Gly
		115				120						125			
Ile	Pro	Leu	Glu	Thr	Gly	Gln	Lys	Gln	Tyr	Asn	Val	Asp	Tyr	Lys	Leu
	130				135						140				
Glu	Thr	Tyr	Leu	Lys	Ile	Ala	Arg	Leu	Tyr	Leu	Glu	Asp	Asp	Asp	Pro
145				150						155				160	
Val	Gln	Ala	Glu	Ala	Tyr	Ile	Asn	Arg	Ala	Ser	Leu	Leu	Gln	Asn	Glu
			165					170					175		
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Pro	Leu	Ser	Arg	Ala	Arg	Thr	His	Thr	Asn	Val	Met	Asn	Ala	Thr	Ser
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Pro	Pro	Ala	Gly	Ser	Asn	Gly	Asn	Ser	Val	Thr	Thr	Pro	Gly	Asn	Ser
			180					185					190		
Val	Pro	Pro	Pro	Leu	Pro	Arg	Ser	Asn	Ser	Leu	Pro	His	Ser	Ala	Val
		195					200					205			
Ser	Asn	Ala	Gly	Ser	Lys	Ser	Ser	Val	Met	Asp	Gly	Ala	Ile	Ala	Ser
	210					215					220				
Gly	Val	Ser	Lys	Phe	Ala	Thr	Leu	Ser	Leu	His	Asp	Arg	Lys	Glu	Arg
225					230					235					240
His	His	Glu	Lys	Asp	His	Lys	Arg	Asn	His	Ser	Met	Gly	His	Ile	Ser
				245					250					255	
Ser	Lys	Ser	Ser	Asp	Lys	Leu	Asn	Leu	Val	Thr	Lys	Thr	Lys	Thr	Asp
			260					265					270		
Pro	Ala	Lys	Thr	Leu	Gly	Thr	Pro	Leu	Cys	Pro	Arg	Met	Glu	Asp	Val
		275					280					285			
Pro	Leu	Leu	Glu	Pro	Leu	Ile	Cys	Lys	Lys	Ile	Ala	His	Glu	Arg	Leu
	290					295					300				
Thr	Val	Leu	Ile	Phe	Leu	Glu	Asp	Cys	Ile	Val	Thr	Ala	Cys	Gln	Glu

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<210> 4939

<211> 730

<212> DNA

<213> Homo sapiens

<400> 4939

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<210> 4940

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4940

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 Ala Asp Ser Ser Ala Ser Thr Arg Pro Pro Gln Gly Pro Pro Ser Leu
 35 40 45
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser
 50 55 60
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala
 65 70 75 80
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

	85		90		95
Ser Lys Ala	Ser Pro Ala Pro Ala	Ala Leu Met Cys Gly Thr Thr Ser			
	100	105	110		
Pro Pro Ile Ile	Pro Ala Ala Thr Glu Pro Val Cys Ala Ser Ser Arg				
	115	120	125		
Ser Gly Arg Pro Thr Ala Thr Ala Cys Ser Leu Gln Pro Leu Leu Asp					
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<210> 4941

<211> 1718

<212> DNA

<213> Homo sapiens

<400> 4941

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1140

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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Ile	Gln	Val	His	Tyr	His	Ile	Gly	Leu	Asn	Leu	Pro	Gly	Cys	Val	Ala
			20					25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
	50				55					60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70				75					80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85					90						95	
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
		100						105					110		
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
		115					120					125			
Thr	Ala	Phe	Phe	Val	Glu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile	
	130					135				140					
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
145					150				155					160	
Asp	Pro	Ile	Met	Lys	Val	Leu	Ser	Ile	Arg	Gly	Leu	Val	Ile	Leu	Ala
			165					170					175		
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
		180					185						190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
		195				200						205			
His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met	Asp

210	215	220
Ser Ala Val Tyr Val Glu Met Leu Gln Ile Leu Leu Pro His Phe Ser		
225	230	235
Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys		240
	245	250
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln		255
	260	265
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn		270
	275	280
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr		285
	290	295
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp		300
305	310	315
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn		320
	325	330
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr		335
	340	345
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile		350
	355	360
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu		365
	370	375
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala		380
385	390	395
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser		400
	405	410
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr		415
	420	425
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr		430
	435	440
Ser His Gln Arg Arg Ser Trp Ile Met Gln Ala Leu Gly Ser Trp Lys		445
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Met Ser Leu Lys Lys		460
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<210> 4943

<211> 1020

<212> DNA

<213> Homo sapiens

<400> 4943

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420

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<210> 4944

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
			20					25					30		
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40					45			
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55					60				
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65					70				75					80	
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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240
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300
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420
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<210> 4946
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 4946

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Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe
 35           40           45
Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser
 50           55           60
Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg
 65           70           75           80
Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn
 85           90           95
Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg
 100          105          110
Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn
 115          120          125
Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp
 130          135          140
Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala
 145          150          155          160
His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser
 165          170          175
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Ser Leu Ser Arg Leu
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<210> 4947
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 4947

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 420

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2060

<210> 4948

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4948

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			20					25					30		
Val	Asp	Asp	Met	Trp	His	Tyr	Ala	Gly	Asp	Gln	Ser	Thr	Asp	Phe	Asn
	35						40					45			
Trp	Tyr	Thr	Arg	Arg	Ala	Met	Leu	Ala	Ala	Ile	Tyr	Asn	Thr	Thr	Glu
	50					55					60				
Leu	Val	Met	Met	Gln	Asp	Ser	Ser	Pro	Asp	Phe	Glu	Asp	Thr	Trp	Arg
65					70					75					80
Phe	Leu	Glu	Asn	Arg	Val	Asn	Asp	Ala	Met	Asn	Met	Gly	His	Thr	Ala
			85					90						95	
Lys	Gln	Val	Lys	Ser	Thr	Gly	Glu	Ala	Leu	Val	Gln	Gly	Leu	Met	Gly
		100						105					110		
Ala	Ala	Val	Thr	Leu	Lys	Asn	Leu	Thr	Xaa	Leu	Asn	Gln	Arg	Arg	
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<210> 4949

<211> 1259

<212> DNA

<213> Homo sapiens

<400> 4949

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 120
 gcttgggagg aaaagacgct gtccaagtac gaggccagcg agattcgctt gctggagatc
 180
 ctggaggggc tgtgcgagag cagcgacttc gaatgcaatc agatgctaga ggcgcaggag
 240
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 300
 ttttgtgtga agacactgaa agtgtgctgc tctccaggaa cctacgtgcc cgactgtctc
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 420
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 660

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 720
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<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

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		20						25					30		
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser
		35					40					45			
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly	Leu
		50				55					60				
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu
65				70					75					80	
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp
			85					90					95		
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro
		100						105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg
		115					120					125			
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly
		130				135					140				
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr
145				150					155					160	
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His	Ser
			165					170					175		
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr
		180						185					190		
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu	Gly
		195					200					205			
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Ser

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

<210> 4951

<211> 1835

<212> DNA

<213> Homo sapiens

<400> 4951

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180
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240
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300
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420
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540
cacgggtgga cagcagaggg gattgcagaa ggagcccagt ctctgggtct ctccagtga
600
gcagccagca tggttggaag gatgggcagt gagctaatac tgcattttgt gaccagtg
660
aatacccggc tcacacgtgt gctagaagag gagcagaagc tggtagagtt gggccaggcg
720
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780
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1020

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 1140
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 1200
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<210> 4952

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4952

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			20					25					30		
Val	Pro	Arg	Ala	Phe	His	Ala	Ser	Ala	Val	Gly	Leu	Arg	Ser	Ser	Asp
		35					40				45				
Glu	Gln	Lys	Gln	Gln	Pro	Pro	Asn	Ser	Phe	Ser	Gln	Gln	His	Ser	Glu
	50					55				60					
Thr	Gln	Gly	Ala	Glu	Lys	Pro	Asp	Pro	Glu	Ser	His	Ser	Pro	Pro	
65					70					75				80	
Arg	Tyr	Thr	Asp	Gln	Gly	Gly	Glu	Glu	Glu	Asp	Tyr	Glu	Ser	Glu	
			85					90				95			
Glu	Gln	Leu	Gln	His	Arg	Ile	Leu	Thr	Ala	Ala	Leu	Glu	Phe	Val	Pro
		100						105				110			
Ala	His	Gly	Trp	Thr	Ala	Glu	Ala	Ile	Ala	Glu	Gly	Ala	Gln	Ser	Leu
		115					120				125				
Gly	Leu	Ser	Ser	Ala	Ala	Ala	Ser	Met	Phe	Gly	Arg	Met	Gly	Ser	Glu
	130					135					140				
Leu	Ile	Leu	His	Phe	Val	Thr	Gln	Cys	Asn	Thr	Arg	Leu	Thr	Arg	Val

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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

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<210> 4953

<211> 355

<212> DNA

<213> Homo sapiens

<400> 4953

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120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgcagcc agcgggggacc
180
taccgcaaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtccctctcg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
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<210> 4954

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4954

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Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
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          20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
          35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

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50	55	60
Trp Asn Gln Leu Val	Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile	
65	70	75
Asp Pro Leu Gly Thr	His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser	80
	85	90
Ser Met Gly Gly Ala Leu Ser Ala	Gly Gly Val Trp Asp Arg Arg Arg	95
	100	105
		110
Glu Ala		

<210> 4955
 <211> 364
 <212> DNA
 <213> Homo sapiens

<400> 4955
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 120
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 180
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 240
 caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgcccctc actctccctc
 300
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 360
 gggg
 364

<210> 4956
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 4956
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20 25 30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
35 40 45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
50 55 60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65 70 75 80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
85 90 95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
100 105 110
Gln Gly

<210> 4957
 <211> 872
 <212> DNA
 <213> Homo sapiens

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 180
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 240
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 ttctatatttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat
 360
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 420
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 480
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 780
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<210> 4958
 <211> 51
 <212> PRT
 <213> Homo sapiens

<400> 4958
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 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
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 Arg Ser Ser
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<210> 4959
 <211> 449

<212> DNA

<213> Homo sapiens

<400> 4959

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120
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180
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240
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300
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<210> 4960

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4960

[illegible]

<210> 4961

<211> 4737

<212> DNA

<213> Homo sapiens

<400> 4961

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120

tccaagaaca gcaagcgtgc ccgggagaag cgcgacagcc gcaacatgga agtacaggtc
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<210> 4962

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

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Pro Leu Gly Asp Tyr Gly Val Gly	Ser Lys Asn Ser Lys Arg Ala Arg		
35	40	45	
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met			
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Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val			
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Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr			
85	90	95	
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys			
100	105	110	
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala			
115	120	125	
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly			
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Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn			
145	150	155	160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp			
165	170	175	
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg			
180	185	190	
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg			
195	200	205	
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile			
210	215	220	
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr			
225	230	235	240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe			
245	250	255	
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys			
260	265	270	
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile			
275	280	285	
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr			
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Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Ser Pro Pro			
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Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro			
325	330	335	
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile			
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Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr			
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Ser Ser Ala Arg Arg Glu Gln Lys Arg Glu Gln Tyr Arg Gln Val Arg			
370	375	380	
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser			
385	390	395	400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp			
405	410	415	
Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val			
420	425	430	
Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu			

Ser	Gly	Trp	Arg	Pro	Asn	Glu	Asp	Asp	Ala	Gly	Asn	Gly	Val	Lys	Pro	
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Gly	Glu	Val	Ala	Thr	Ile	Ala	Asn	Gly	Lys	Val	Asn	Pro	Ser	Gln	Ser	
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Thr	Glu	Glu	Ala	Thr	Glu	Ala	Thr	Glu	Val	Pro	Asp	Pro	Gly	Pro	Ser	
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Glu	Pro	Glu	Thr	Ala	Thr	Leu	Arg	Pro	Gly	Pro	Leu	Thr	Glu	His	Val	
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Phe	Thr	Asp	Pro	Ala	Pro	Thr	Pro	Ser	Ser	Gly	Pro	Gln	Pro	Gly	Ser	
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Glu	Asn	Gly	Pro	Glu	Pro	Asp	Ser	Ser	Ser	Thr	Arg	Pro	Glu	Pro	Glu	
		675					680					685				
Pro	Ser	Gly	Asp	Pro	Thr	Gly	Ala	Gly	Ser	Ser	Ala	Ala	Pro	Thr	Met	
	690					695					700					
Trp	Leu	Gly	Ala	Gln	Asn	Gly	Trp	Leu	Tyr	Val	His	Ser	Ala	Val	Ala	
705					710					715					720	
Asn	Trp	Lys	Lys	Cys	Leu	His	Ser	Ile	Lys	Leu	Lys	Asp	Ser	Val	Leu	
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Thr	Leu	Ala	Ile	Phe	His	Arg	Gly	Glu	Asp	Gly	Gln	Trp	Asp	Leu	Ser	
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Asn	Tyr	His	Leu	Met	Asp	Leu	Gly	His	Pro	His	His	Ser	Ile	Arg	Cys	
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 885 890 895
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 900 905 910
 Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly
 915 920 925
 Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
 930 935 940
 Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln
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 Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val
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 Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp
 980 985 990
 Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu
 995 1000 1005
 Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr
 1010 1015 1020
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<210> 4963

<211> 1575

<212> DNA

<213> Homo sapiens

<400> 4963

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<210> 4964

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
Asn	Ser	Arg	Ala	Leu	Gly	Val	Met	Asp	Lys	Ser	Thr	Ala	Ile	Pro	Lys
	50					55					60				
Ala	Ser	Ser	Ser	Glu	Ser	Leu	Ser	Ala	Lys	Thr	Cys	Ser	Leu	Phe	Leu
65				70					75					80	
Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
			85					90						95	
Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
		100					105						110		
Ser	Lys	Leu	Gln	Val	Asn	Leu	Leu	Ser	Lys	Phe	Xaa	Leu	Ile	Ala	Lys

	115					120					125					
Ser	Cys	Tyr	Glu	Gln	Arg	Asn	Phe	Ala	Thr	Ala	Met	Gln	Ile	Leu	Ser	
	130					135					140					
Gly	Leu	Glu	His	Leu	Ala	Val	Arg	Gln	Ser	Pro	Ala	Trp	Arg	Ile	Leu	
145					150					155					160	
Pro	Ala	Lys	Ile	Ala	Glu	Val	Met	Glu	Glu	Leu	Lys	Ala	Val	Glu	Val	
				165					170					175		
Phe	Leu	Lys	Ser	Asp	Ser	Leu	Cys	Leu	Met	Glu	Gly	Arg	Arg	Phe	Arg	
			180				185					190				
Ala	Gln	Pro	Thr	Leu	Pro	Ser	Ala	His	Leu	Leu	Ala	Met	His	Ile	Gln	
		195					200				205					
Gln	Leu	Glu	Thr	Gly	Gly	Phe	Thr	Met	Thr	Asn	Gly	Ala	His	Arg	Trp	
	210					215				220						
Ser	Lys	Leu	Arg	Asn	Ile	Ala	Lys	Val	Val	Ser	Gln	Val	His	Ala	Phe	
225				230						235					240	
Gln	Glu	Asn	Pro	Tyr	Thr	Phe	Ser	Pro	Asp	Pro	Lys	Leu	Gln	Ser	Tyr	
			245						250					255		
Leu	Lys	Gln	Arg	Ile	Ala	Arg	Phe	Ser	Gly	Ala	Asp	Ile	Ser	Thr	Leu	
			260					265					270			
Ala	Ala	Asp	Ser	Arg	Ala	Asn	Phe	His	Gln	Val	Ser	Ser	Glu	Lys	His	
		275					280					285				
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<210> 4965

<211> 1474

<212> DNA

<213> Homo sapiens

<400> 4965

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240					
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300					
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480					
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540					
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660					
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 960
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 1020
 aatggtagtt ttctagttca caaattccct tggtagttga agacagcttt tccattttca
 1080
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 1380
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<210> 4966

<211> 212

<212> PRT

<213> Homo sapiens

<400> 4966

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			20					25					30		
Leu	Ile	Leu	Lys	Trp	Glu	Thr	Leu	Asn	Asp	Ala	Gly	Phe	Thr	Thr	Ala
		35					40					45			
Asn	Asn	Ile	Ala	Asn	Leu	Lys	Ile	Ser	Leu	Leu	Asn	Lys	Asp	Lys	Ile
		50				55					60				
Glu	Leu	Asp	Ser	Ser	Ser	Pro	Ala	Ser	Lys	Glu	Asn	Glu	Glu	Lys	Val
65					70				75					80	
Cys	Leu	Glu	Tyr	Asn	Glu	Glu	Leu	Glu	Lys	Leu	Cys	Glu	Glu	Leu	Gln
			85					90					95		
Ala	Thr	Leu	Asp	Gly	Leu	Thr	Lys	Ile	Gln	Val	Lys	Met	Glu	Lys	Leu
			100					105					110		
Ser	Ser	Thr	Thr	Lys	Gly	Ile	Cys	Glu	Leu	Glu	Asn	Tyr	His	Tyr	Gly
		115					120					125			
Glu	Glu	Ser	Lys	Arg	Pro	Pro	Leu	Phe	His	Thr	Trp	Pro	Thr	Thr	His
		130				135					140				
Phe	Tyr	Glu	Val	Ser	His	Lys	Leu	Leu	Glu	Met	Tyr	Arg	Lys	Glu	Leu
145					150					155				160	
Leu	Leu	Lys	Arg	Thr	Val	Ala	Lys	Glu	Leu	Ala	His	Thr	Gly	Asp	Pro

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Asp Leu Thr Leu Ser Tyr Leu Ser Met Trp Leu His Gln Pro Tyr Val
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<210> 4967
 <211> 550
 <212> DNA
 <213> Homo sapiens

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 300
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<210> 4968
 <211> 51
 <212> PRT
 <213> Homo sapiens

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<400> 4968
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Leu Asp Leu Gln Asn Ser Trp Xaa Tyr Thr Arg Glu Pro Pro Cys Pro
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Ala Ser Gln
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<210> 4969
 <211> 2911
 <212> DNA
 <213> Homo sapiens

<400> 4969

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120
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<211> 155

<212> PRT

<213> Homo sapiens

<400> 4970

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Pro Pro Ala Pro Pro Thr Pro Pro Pro Pro Thr Leu Pro Pro Pro Ile			
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Pro Pro Lys Gly Glu Gly Glu Arg Ala Gly Val Glu Arg Thr Gln Lys			
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Gly Asp Val Gly Xaa Asn Pro Gly Ala Gln Ser Pro Phe His Gln Met			
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Pro Pro Ser Leu Asn Pro Pro Pro Leu Pro Ala Pro Trp Pro Pro Cys			
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<212> DNA

<213> Homo sapiens

<400> 4971

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<212> PRT

<213> Homo sapiens

<400> 4972

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<211> 3555

<212> DNA

<213> Homo sapiens

<400> 4973

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<211> 298

<212> PRT

<213> Homo sapiens

<400> 4976

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Gly	Asp	Glu	Ile	Gln	Ile	Leu	Ser	Asn	Leu	Val	Met	Glu	Glu	Leu	Leu
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Asp	Arg	Lys	Arg	Thr	Trp	Leu	Gly	Leu	Leu	Glu	Glu	Ala	Tyr	Thr	Leu
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Val	Gln	His	Gln	Val	Ser	Glu	Gly	Leu	Ser	Ala	Leu	Lys	Glu	Glu	Cys
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Arg	Ala	Leu	Thr	Lys	Gly	Leu	Glu	Gly	Thr	Ile	Arg	Ser	Asp	Met	Asp
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Asn Phe Gln Thr Thr Lys Asp Ser Val Gln Leu Lys Glu His Leu Asp		175
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Arg Leu Met Asn Leu Pro Leu His Ser Val Lys Met Glu Pro Cys Tyr		190
	195	200
Thr Lys Val Asn Leu Leu His Glu Arg Leu Gln Asp Leu Lys Ser Arg		205
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Phe Arg Phe Pro His Ile Asp Leu Val Val Gln Arg Thr Gln Asn Tyr		220
225	230	235
Met Gln Glu Leu Met Glu Asn Ala Val Phe Thr Phe Glu Gln Leu Leu		240
	245	250
Ser Pro His Leu Gln Gly Glu Ala Ser Lys Thr Ala Phe Ser Ile Glu		255
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Lys Val Lys Leu Arg Val Leu Lys Gln Tyr Asp Tyr Asp Ser Ser Thr		270
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<210> 4977

<211> 3309

<212> DNA

<213> Homo sapiens

<400> 4977

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 4978

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		20					25					30			
Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
		35				40					45				
Gln	Ala	Pro	Ala	Leu	Cys	Ser	Val	Ser	Phe	Ser	Asn	Pro	Glu	Gly	Tyr
	50				55				60						
Ile	Asp	Ser	Ser	Asp	Tyr	Pro	Leu	Leu	Pro	Leu	Asn	Asn	Phe	Leu	Glu
65				70				75					80		
Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
		85				90						95			
Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
		100				105						110			
Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

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 Arg Thr Phe Gln Asp Asp Gly Leu Gly Thr Phe Gln Leu His Tyr Gln
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 Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp
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 Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys
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 His Leu Gly Tyr Glu Leu Gln Gly Ala Lys Met Leu Thr Cys Ile Asn
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 Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro
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 Cys Gly Gly Ala Val His Asn Ala Thr Ile Gly Arg Val Leu Ser Pro
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 Ser Tyr Pro Glu Asn Thr Asn Gly Ser Gln Phe Cys Ile Trp Thr Ile
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 Lys Gly His Cys Tyr Glu Pro Tyr Ile Gln Asn Gly Asn Phe Thr Thr
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 Glu Glu Ser Leu Ala Cys Asp Asn Pro Gly Leu Pro Glu Asn Gly Tyr
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 Met Cys Tyr Glu Gly Phe Glu Leu Met Gly Glu Val Thr Ile Arg Cys
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<211> 1865

<212> DNA

<213> Homo sapiens

<400> 4979

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<211> 266

<212> PRT

<213> Homo sapiens

<400> 4980

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<210> 4981

<211> 1902

<212> DNA

<213> Homo sapiens

<400> 4981

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<211> 73
 <212> PRT
 <213> Homo sapiens

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 Gln Pro Pro Ser Pro Arg Phe Lys Arg Phe Ser Cys Leu Leu Ser
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 Phe Ser Arg Asp Gly Val Ser Pro Cys
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<210> 4983
 <211> 1418
 <212> DNA
 <213> Homo sapiens

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 180
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<211> 256

<212> PRT

<213> Homo sapiens

<400> 4984

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<212> PRT

<213> Homo sapiens

<400> 4986

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Ile	Val	Pro	Thr	Phe	His	Arg	Arg	Cys	Tyr	Trp	Leu	Leu	Gln	Asn	Pro	
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 Tyr Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile
 1155 1160 1165
 Gln Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg
 1170 1175 1180
 Thr Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys
 1185 1190 1195 1200
 Lys Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys
 1205 1210 1215
 Arg His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu
 1220 1225 1230
 Pro Gln Pro Gly Leu Ala Thr
 1235

<210> 4987

<211> 357

<212> DNA

<213> Homo sapiens

<400> 4987

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cgtctccctg gtggggacac tccattttcc agctcttgat agaaacacag gtgactgtcg
 120

ggaggagtgg gagggaggct ccttgtgtgg cgagtcctt cgctcttagt ggtctctgct
 180

ccccttgtgg aaacgcagtt ccaagaaaac aaagaggaaa tgctgcgaag agccacaagg
 240

actttttctc tgagtcacaa gaagacgaat atacgctgca atgacgcagt gaggggaagaa
 300

gtcgccttgc acccatatgg ctgctgagga tgggagagat ggacgcggtc ggagaga
357

<210> 4988

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4988

Met	Gly	Ala	Arg	Arg	Leu	Leu	Pro	Ser	Leu	Arg	His	Cys	Ser	Val	Tyr
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Ser	Ser	Ser	Cys	Asp	Ser	Glu	Lys	Lys	Ser	Leu	Trp	Leu	Phe	Ala	Ala
			20					25					30		
Phe	Pro	Leu	Cys	Phe	Leu	Gly	Thr	Ala	Phe	Pro	Gln	Gly	Glu	Gln	Arg
		35					40					45			
Pro	Leu	Glu	Ala	Lys	Gly	Leu	Ala	Thr	Gln	Gly	Ala	Ser	Leu	Pro	Leu
	50					55					60				
Leu	Pro	Thr	Val	Thr	Cys	Val	Ser	Ile	Lys	Ser	Trp	Lys	Met	Glu	Cys
65					70					75				80	
Pro	His	Gln	Gly	Asp	Gly	Val	Thr	Thr	Glu	Ala	Gly	Ser	Glu	Leu	Pro
			85						90					95	
Gln	Leu	Leu	Gln	Ala	Pro	Trp	Pro	Arg							
			100					105							

<210> 4989

<211> 1723

<212> DNA

<213> Homo sapiens

<400> 4989

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120
aggacaggca cgagtggctg tgcgcgcggg tcgacccttt cacagaccat gacctggata
180
tgggcacccat acccagctac agccgagccc agcagctcct cctggtgaaa ctgcagcgcc
240
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300
ggaacaccct gcagccagaa gaagcgcttt caacaagcga cccccgggtc agccccctg
360
tctcgcgagc aagcttcctt tttggccagc tccttcagtt cgtcagcagg tccgagaaca
420
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480
gcctggcccc gtctcgctg gacgccacca agctcttgac tgagaagcag gaagagctgg
540
accctgagag cgagctgggc aagaacctca gcctcatccc ctacagcctg gtacgcgcct
600
tctactgcga ggcgcgcggg cccgtgctct tcacaccac cgtgctggcc aagacgctgg
660
tgcagaggct gctcaactcg ggaggtgcc tggagttcac catctgcaag tcagatatcg
720

tcacaagaga tgagttcctc agaaggcaga agacggagac catcatctac tcccagagaga
 780
 agaaccccaa cgcgttcgaa tgcacgcccc ctgccaaacat tgaagctgtg gccgccaaga
 840
 acaagcactg cctgctggag gctgggatcg gctgcacaag agacttgatc aagtccaaca
 900
 tctaccccat cgtgctcttc atccgggtgt gtgagaagaa catcaagagg ttcagaaagc
 960
 tgctgccccg gcctgagacg gaggaggagt tcctgcgcgt gtgccggctg aaggagaagg
 1020
 agctggaggc cctgccgtgc ctgtacgcca cggtggaacc tgacatgtgg ggcagcgtag
 1080
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 1140
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 1200
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 1380
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 1440
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 1560
 cactcaccat aaacacatcc ccaggcagga cagatcgggg aaggggtgtg taccaggcta
 1620
 tgatttctct tgcattaaaa tgtattatta tttctttgtt tcgacccttt gtttgtgaac
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 1723

<210> 4990

<211> 54

<212> PRT

<213> Homo sapiens

<400> 4990

Thr	Ala	Pro	Thr	Thr	Pro	Cys	Gly	His	Ser	Gly	Thr	Pro	Cys	Ser	Gln
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Lys	Lys	Arg	Phe	Gln	Gln	Ala	Thr	Pro	Gly	Ser	Ala	Pro	Val	Ser	Arg
			20					25					30		
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
		35				40						45			
Arg	Thr	Ser	Ile	Ser	Gly										
50															

<210> 4991

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4991

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 120
 atcaagctgc agcagcagat gaaggccaag gacctgcaac gctgcgagct gctggccagg
 180
 ttgcggcagc tggaggatga gaagaagcag atgacgctga cgcgctgga gctgctaacc
 240
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 300
 aaggtgaagg acgacaacta caacttagcc atgctgctacg cacagctcag tgaggagaag
 360
 aacatggcgg tcatgaggag ccgagacctc caactcgaga tcgatcagct aaagcaccgg
 420
 ttgaataaga tggaggagga atgtaagctg gagagaaatc agtctctaaa actgaagaat
 480
 gacattgaaa atcggcccaa gaaggagcag gttctggaac tggagcggga gaatgaaatg
 540
 ctgaagacca aaaaccagga gctgcagtc atcatccagg ccgggaagcg cagcctgcc
 600
 gactcagaca aggccatcct ggacatcttg gaacacgacc gcaaggaggc cctggaggac
 660
 aggcaggagc tggtaacag gatctacaac ctgcaggagg aggcccgcca ggcagaggag
 720
 ctgcgagaca agtacctgga ggagaaggag gacctggagc tcaagtgtc gaccctggga
 780
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 828

<210> 4992

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4992

Asp Ile Leu Glu His Asp Arg Lys Glu Ala Leu Glu Asp Arg Gln Glu
 1 5 10 15
 Leu Val Asn Arg Ile Tyr Asn Leu Gln Glu Ala Arg Gln Ala Glu
 20 25 30
 Glu Leu Arg Asp Lys Tyr Leu Glu Lys Glu Asp Leu Glu Leu Lys
 35 40 45
 Cys Ser Thr Leu Gly Lys Asp Cys Glu Met Tyr Lys His Arg Met Asn
 50 55 60
 Thr Val Met Leu Gln
 65

<210> 4993

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4993

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 120
 ccagtcagga gagagagact gagaaggcta tggatcgact agcccggtga acacagagca
 180
 ttcctaatga cagtccctgcc cggggtgagg gcacccattc tgaagaggaa ggctttgcc
 240
 tggatgagga ggactctgat ggagaactga atacctggga gctgtcagaa gggacaaact
 300
 gtccacccaa ggaacagcct ggcgatcttt ttaatgagga ctgggactcg gagttgaaag
 360
 cagatcaagg gaatccatat gatgctgacg acatccagga gagcatttct caagagctta
 420
 aaccttgggg gtgctgtgcc ccacaaggag acatgatcta tgacccagc tggcaccatc
 480
 cgctccact gataccctat tattccaaga tggcttttga aacaggacag tttgacgatg
 540
 ctgaagattg agtgtggagc tttctgcctt gtaggtgggc gggcctccac gtcaagatct
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 660
 ctgggttaca cagaccagtg ttccttattg acagtgttca ataaggcccc gtcattctcg
 720
 ccagtctgtt gttgttctta atgggctcct ccttgaaatg tgtgtgtgtt tgtgtcaaga
 780
 ggagttgtgt tctttgtaaa taaagggttaa aaagagaaac caaaaaaaaa aaaaaaa
 837

<210> 4994

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4994

Met	Asp	Arg	Leu	Ala	Arg	Gly	Thr	Gln	Ser	Ile	Pro	Asn	Asp	Ser	Pro
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Ala	Arg	Gly	Glu	Gly	Thr	His	Ser	Glu	Glu	Gly	Phe	Ala	Met	Asp	
			20					25				30			
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
		35				40					45				
Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
	50				55					60					
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65				70				75						80	
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
			85					90					95		
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
		100						105				110			
Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
		115					120					125			
Asp	Asp	Ala	Glu	Asp											

<210> 4995
<211> 1595
<212> DNA
<213> Homo sapiens

<400> 4995
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120
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240
cgggaaacag ccgtacgcat ctcccaggag attgggaacc ttatgaagga aatcgagacc
300
cttgtggaag agaagaccaa ggagtcactg gatgtgagca gactgaccgc ggaaggtggc
360
ccctgctgt atgaaggcat cagtctcacc atgaactcca aactcctgaa tggttcccag
420
cgggtggtga tggacggcgt aatctctgac cagcagtgctc aggagctgca gagactgacc
480
aatgtggcag caacctcagg agatggctac cggggtcaga cctccccaca tactcccaat
540
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600
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720
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780
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840
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900
gaactggatg ccaagaccgt gacggcagag gtgtagcctc agtgtggaag agccgtggga
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1080
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1440

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 1560
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<210> 4996

<211> 217

<212> PRT

<213> Homo sapiens

<400> 4996

Met	Lys	Glu	Ile	Glu	Thr	Leu	Val	Glu	Glu	Lys	Thr	Lys	Glu	Ser	Leu
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Asp	Val	Ser	Arg	Leu	Thr	Arg	Glu	Gly	Gly	Pro	Leu	Leu	Tyr	Glu	Gly
			20					25					30		
Ile	Ser	Leu	Thr	Met	Asn	Ser	Lys	Leu	Leu	Asn	Gly	Ser	Gln	Arg	Val
		35					40					45			
Val	Met	Asp	Gly	Val	Ile	Ser	Asp	His	Glu	Cys	Gln	Glu	Leu	Gln	Arg
	50					55				60					
Leu	Thr	Asn	Val	Ala	Ala	Thr	Ser	Gly	Asp	Gly	Tyr	Arg	Gly	Gln	Thr
65					70					75					80
Ser	Pro	His	Thr	Pro	Asn	Glu	Lys	Phe	Tyr	Gly	Val	Thr	Val	Phe	Lys
				85					90					95	
Ala	Leu	Lys	Leu	Gly	Gln	Glu	Gly	Lys	Val	Pro	Leu	Gln	Ser	Ala	His
			100					105					110		
Leu	Tyr	Tyr	Asn	Val	Thr	Glu	Lys	Val	Arg	Arg	Ile	Met	Glu	Ser	Tyr
		115					120					125			
Phe	Arg	Leu	Asp	Thr	Pro	Leu	Tyr	Phe	Ser	Tyr	Ser	His	Leu	Val	Cys
	130					135				140					
Arg	Thr	Ala	Ile	Glu	Glu	Val	Gln	Ala	Glu	Arg	Lys	Asp	Asp	Ser	His
145					150					155					160
Pro	Val	His	Val	Asp	Asn	Cys	Ile	Leu	Asn	Ala	Glu	Thr	Leu	Val	Cys
				165					170					175	
Val	Lys	Glu	Pro	Pro	Ala	Tyr	Thr	Phe	Arg	Asp	Tyr	Ser	Ala	Ile	Leu
			180					185					190		
Tyr	Leu	Asn	Gly	Asp	Phe	Asp	Gly	Gly	Asn	Phe	Tyr	Phe	Thr	Glu	Leu
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Asp	Ala	Lys	Thr	Val	Thr	Ala	Glu	Val							
		210				215									

<210> 4997

<211> 1888

<212> DNA

<213> Homo sapiens

<400> 4997

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 120
 ggggggggag gggaagagag gggaccctgg gacccccgcc cccccaccc ggccgcccct
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gccccccggg acccgagaa gatgtcttcg cggacggtgc tggccccggg caacgatcgg
240
aactcggaca cgcattggcac cttgggcagt ggccgctcct cggacaaagg cccgtcctgg
300
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360
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420
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540
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720
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1140
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1200
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1260
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1800

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 1888

<210> 4998

<211> 464

<212> PRT

<213> Homo sapiens

<400> 4998

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Thr	His	Gly	Thr	Leu	Gly	Ser	Gly	Arg	Ser	Ser	Asp	Lys	Gly	Pro	Ser
			20					25					30		
Trp	Ser	Ser	Arg	Ser	Leu	Gly	Ala	Arg	Cys	Arg	Asn	Ser	Ile	Ala	Ser
		35					40					45			
Cys	Pro	Glu	Glu	Gln	Pro	His	Val	Gly	Asn	Tyr	Arg	Leu	Leu	Arg	Thr
	50					55					60				
Ile	Gly	Lys	Gly	Asn	Phe	Ala	Lys	Val	Lys	Leu	Ala	Arg	His	Ile	Leu
65					70					75				80	
Thr	Gly	Arg	Glu	Val	Ala	Ile	Lys	Ile	Ile	Asp	Lys	Thr	Gln	Leu	Asn
				85					90					95	
Pro	Ser	Ser	Leu	Gln	Lys	Leu	Phe	Arg	Glu	Val	Arg	Ile	Met	Lys	Gly
			100					105					110		
Leu	Asn	His	Pro	Asn	Ile	Val	Lys	Leu	Phe	Glu	Val	Ile	Glu	Thr	Glu
		115					120						125		
Lys	Thr	Leu	Tyr	Leu	Val	Met	Glu	Tyr	Ala	Ser	Ala	Gly	Glu	Pro	Pro
		130				135					140				
Thr	Leu	Ser	Ala	Leu	Pro	Leu	Cys	His	Leu	Pro	Leu	Pro	Leu	His	Leu
145					150					155				160	
Thr	Leu	Thr	Pro	Leu	Gly	Leu	Cys	Pro	Ala	Gly	Glu	Val	Phe	Asp	Tyr
				165					170					175	
Leu	Val	Ser	His	Gly	Arg	Met	Lys	Glu	Lys	Glu	Ala	Arg	Ala	Lys	Phe
			180				185						190		
Arg	Gln	Ile	Val	Ser	Ala	Val	His	Tyr	Cys	His	Gln	Lys	Asn	Ile	Val
	195						200						205		
His	Arg	Asp	Leu	Lys	Ala	Glu	Asn	Leu	Leu	Leu	Asp	Ala	Glu	Ala	Asn
	210					215					220				
Ile	Lys	Ile	Ala	Asp	Phe	Gly	Phe	Ser	Asn	Glu	Phe	Thr	Leu	Gly	Ser
225				230						235				240	
Lys	Leu	Asp	Thr	Phe	Cys	Gly	Ser	Pro	Pro	Tyr	Ala	Ala	Pro	Glu	Leu
				245					250					255	
Phe	Gln	Gly	Lys	Lys	Tyr	Asp	Gly	Pro	Glu	Val	Asp	Ile	Trp	Ser	Leu
		260					265						270		
Gly	Val	Ile	Leu	Tyr	Thr	Leu	Val	Ser	Gly	Ser	Leu	Pro	Phe	Asp	Gly
		275					280						285		
His	Asn	Leu	Lys	Glu	Leu	Arg	Glu	Arg	Val	Leu	Lys	Gly	Lys	Tyr	Arg
	290					295						300			
Val	Pro	Phe	Tyr	Met	Ser	Thr	Asp	Cys	Glu	Ser	Ile	Leu	Arg	Arg	Phe
305					310					315				320	
Leu	Val	Leu	Asn	Pro	Ala	Lys	Arg	Cys	Thr	Leu	Glu	Gln	Ile	Met	Lys
			325						330					335	
Asp	Lys	Trp	Ile	Asn	Ile	Gly	Tyr	Glu	Gly	Glu	Glu	Leu	Lys	Pro	Tyr

340							345					350				
Thr	Glu	Pro	Glu	Glu	Asp	Phe	Gly	Asp	Thr	Lys	Arg	Ile	Glu	Val	Met	
355							360					365				
Val	Gly	Met	Gly	Tyr	Thr	Arg	Glu	Glu	Ile	Lys	Glu	Ser	Leu	Thr	Ser	
370							375					380				
Gln	Lys	Tyr	Asn	Glu	Val	Thr	Ala	Thr	Tyr	Leu	Leu	Leu	Gly	Arg	Lys	
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<211> 1630
<212> DNA
<213> Homo sapiens
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<210> 5000
 <211> 307
 <212> PRT
 <213> Homo sapiens

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 100 105 110
 Pro Ala Glu Ser Val Thr Val Trp Ile Asp Pro Leu Asp Ala Thr Gln
 115 120 125
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 130 135 140
 Ala Val Asn Gly Lys Pro Met Leu Gly Val Ile His Lys Pro Phe Ser
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<211> 3427
<212> DNA
<213> Homo sapiens
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<211> 335

<212> PRT

<213> Homo sapiens

<400> 5002

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Thr Ala Val Tyr His Gln Asp Ala Phe Met Gln Leu Leu His Asp Leu		
165	170	175
Leu Ile Asp Ile Leu Ser Ser Asp Asn Leu Asn Val Glu Lys Glu Glu		
180	185	190
Thr Val Arg Glu Ala Ala Met Leu Trp Leu Glu Tyr Asn Thr Glu Ser		
195	200	205
Arg Ser Gln Tyr Leu Ser Ser Val Leu Ser Gln Ile Arg Ile Asp Ala		
210	215	220
Leu Ser Glu Val Thr Gln Arg Ala Trp Phe Gln Gly Leu Pro Pro Asn		
225	230	235
Asp Lys Ser Val Val Val Gln Gly Leu Tyr Lys Ser Met Pro Lys Phe		
245	250	255
Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile		
260	265	270
Glu Ala Ser Ser Glu Asn Pro Cys Ser Leu Tyr Ser Ser Val Cys Tyr		
275	280	285
Ser Pro Gln Ala Glu Lys Val Tyr Lys Leu Cys Ser Pro Pro Ala Asp		
290	295	300
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<210> 5003
 <211> 3729
 <212> DNA
 <213> Homo sapiens

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<210> 5004

<211> 642
 <212> PRT
 <213> Homo sapiens

<400> 5004

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Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr Ile
 355          360          365
Ser Ser Lys Phe Arg Gly Lys Tyr Ile Ser Ile Met Pro Leu Gly Ala
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Asn	Ala	Glu	Asn	Met	Tyr	Tyr	Phe	Ser	Glu	Leu	Ala	Leu	Thr	Leu	Asn																		
				515											520											525							
Glu	His	Glu	Glu	Gly	Val	Ala	Pro	Thr	Asp	Ser	Arg	Leu	Arg	Pro	Asp																		
				530											535											540							
Gln	Arg	Leu	Met	Glu	Lys	Gly	Arg	Trp	Asp	Glu	Ala	Asn	Thr	Glu	Lys																		
545					550											555											560						
Gln	Arg	Leu	Glu	Lys	Gln	Arg	Leu	Ser	Arg	Arg	Arg	Arg	Arg	Leu	Glu																		
				565											570											575							
Ala	Cys	Gly	Pro	Gly	Ser	Ser	Cys	Ser	Ser	Glu	Glu	Gly	Glu	Ala	Gly																		
				580											585											590							
Arg	Glu	Gly	Arg	Pro	Gly	Gly	Glu	Glu	Arg	Gly	Ala	Arg	Val	Gly	Val																		
				595											600											605							
Pro	Gln	Gly	Arg	Ile	Pro	Gly	Glu	Gln	Ala	Thr	Ser	Pro	Pro	Thr	Ser																		
				610											615											620							
Pro	Leu	Cys	Leu	Pro	Ser	Arg	Glu	Gly	Gly	Gly	Cys	Leu	His	Ala	Thr																		
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Val	Val																																

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<210> 5005
<211> 1120
<212> DNA
<213> Homo sapiens
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ggtaatggcg gcggcggtgg cggcgacggt ccagacccca tccctctgt agccggagcc
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gagacagccg .acagcgaact ccgcggcctc ggagccggcg gcagcggcga ctccctcag
240
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300
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360
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420

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 660
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 720
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 780
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 840
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 960
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 1020
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<210> 5006

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5006

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Ala	Leu	Glu	Glu	Gln	Leu	Leu	Lys	Tyr	Ser	Pro	Asp	Pro	Val	Val	Val
		20						25					30		
Arg	Gly	Ser	Gly	His	Val	Thr	Val	Phe	Gly	Leu	Ser	Asn	Lys	Phe	Glu
		35					40					45			
Ser	Glu	Phe	Pro	Ser	Ser	Leu	Thr	Gly	Lys	Val	Ala	Pro	Glu	Glu	Phe
	50					55				60					
Lys	Ala	Ser	Ile	Asn	Arg	Val	Asn	Ser	Cys	Leu	Lys	Lys	Asn	Leu	Pro
65				70					75					80	
Val	Asn	Val	Arg	Trp	Leu	Leu	Cys	Gly	Cys	Leu	Cys	Cys	Cys	Cys	Thr
			85					90					95		
Leu	Gly	Cys	Ser	Met	Trp	Pro	Val	Ile	Cys	Leu	Ser	Lys	Arg	Thr	Arg
		100					105					110			
Arg	Ser	Ile	Glu	Lys	Leu	Leu	Glu	Trp	Glu	Asn	Asn	Arg	Leu	Tyr	His
	115					120					125				
Lys	Leu	Cys	Leu	His	Trp	Arg	Leu	Ser	Lys	Arg	Lys	Cys	Glu	Thr	Asn
	130				135				140						
Asn	Met	Met	Glu	Tyr	Val	Ile	Leu	Ile	Glu	Phe	Leu	Pro	Lys	Thr	Pro
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Ile	Phe	Arg	Pro	Asp											
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<210> 5007

<211> 2165

<212> DNA

<213> Homo sapiens

<400> 5007

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240
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gagaatatcc tgggtggagca gctatacatg tgtgtggagt ttctctggaa gtctgagcga
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660
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720
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900
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960
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1320
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1440

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 1620
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 1860
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 1980
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 2040
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<210> 5008

<211> 487

<212> PRT

<213> Homo sapiens

<400> 5008

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Gly	Asn	Ser	Tyr	Ala	Ser	Thr	Pro	Glu	Leu	Arg	Arg	Thr	Arg	Leu	Glu
			20					25					30		
Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
		35					40				45				
Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50					55				60					
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
65				70					75						80
Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85					90						95	
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
			100					105					110		
Glu	Phe	Leu	Trp	Lys	Ser	Glu	Arg	Tyr	Glu	Xaa	Ser	Leu	Leu	Met	Ser
		115					120					125			
Thr	Ser	Pro	Ser	Leu	Leu	Ser	Leu	Arg	Asn	Asn	Glu	Thr	Ser	Lys	Asn
		130				135					140				
Ser	Asp	Leu	Tyr	Tyr	Asp	Ile	His	Arg	Ser	Tyr	Leu	Lys	Val	Ala	Glu
145					150					155					160
Val	Val	Asn	Ser	Glu	Ala	Ala	Val	Trp	Ser	Leu	Leu	Ser	Cys	Gly	Ile

Tyr Gly Gln Gly Phe Phe Glu Glu Glu Glu Gly Lys Glu Tyr Ile Tyr
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 180 185 190
 Lys Glu Pro Lys Leu Thr Gly Leu Ser Glu Ile Ser Gln Arg Leu Leu
 195 200 205
 Lys Leu Tyr Ala Asp Lys Phe Gly Ala Asp Asn Val Lys Ile Ile Gln
 210 215 220
 Asp Ser Asn Lys Val Asn Pro Lys Asp Leu Asp Pro Lys Tyr Ala Tyr
 225 230 235 240
 Ile Gln Val Thr Tyr Val Thr Pro Phe Phe Glu Glu Lys Glu Ile Glu
 245 250 255
 Asp Arg Lys Thr Asp Phe Glu Met His His Asn Ile Asn Arg Phe Val
 260 265 270
 Phe Glu Thr Pro Phe Thr Leu Ser Gly Lys Lys His Gly Gly Val Ala
 275 280 285
 Glu Gln Cys Lys Arg Arg Thr Ile Leu Thr Thr Ser His Leu Phe Pro
 290 295 300
 Tyr Val Lys Lys Arg Ile Gln Val Ile Ser Gln Ser Ser Thr Glu Leu
 305 310 315 320
 Asn Pro Ile Glu Val Ala Ile Asp Glu Met Ser Lys Lys Val Ser Glu
 325 330 335
 Leu Asn Gln Leu Cys Thr Met Glu Glu Val Asp Met Ile Arg Leu Gln
 340 345 350
 Leu Lys Leu Gln Gly Ser Val Ser Val Lys Val Asn Ala Gly Pro Met
 355 360 365
 Ala Tyr Ala Arg Ala Phe Leu Glu Glu Thr Asn Ala Lys Lys Tyr Pro
 370 375 380
 Asp Asn Gln Val Lys Leu Leu Lys Glu Ile Phe Arg Gln Phe Ala Asp
 385 390 395 400
 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp
 405 410 415
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
 420 425 430
 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
 435 440 445
 Leu Tyr Ser Phe Cys Ser Ser Val Ser Ser Ile Ser Leu Ser Thr Val
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 Ser Lys Ser Asp Tyr Gly Gln Gly Arg Pro Val Lys Ala Arg Ser Gly
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<210> 5009

<211> 426

<212> DNA

<213> Homo sapiens

<400> 5009

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120

ccttgagat gtcagcaaag catggcgagg agagcagctt ctctctgtc ccaaaggga

180

gcagaagatt aggagctaga tcaagcaaga ctgggggctg caggtgtagg aagtgaatca
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<210> 5010

<211> 119

<212> PRT

<213> Homo sapiens

<400> 5010

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Ser	Tyr	Ala	Cys	Phe	Phe	Phe	Leu	Ser	Pro	Ser	Leu	Leu	Phe	Leu	Pro
		20					25				30				
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
	35					40					45				
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
	50				55				60						
Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
65				70				75					80		
Glu	Lys	Leu	Leu	Ser	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys
			85				90				95				
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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Val	Ile	Met	Pro	Lys	Pro	Tyr									
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<210> 5011

<211> 3431

<212> DNA

<213> Homo sapiens

<400> 5011

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 420

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 2040

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<210> 5012

<211> 950

<212> PRT

<213> Homo sapiens

<400> 5012

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      20           25           30
Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
      35           40           45
Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
      50           55           60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
65           70           75           80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
      85           90           95
Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
      100          105          110
Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
      115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
      130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
145          150          155          160
Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
      165          170          175
Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
      180          185          190
Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
      195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
      210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
      245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
      260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
      275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
      290          295          300
Arg Leu Asn Val Leu Arg Glu Tyr Leu Glu Arg Glu Leu Thr Met Ala
305          310          315          320
Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
      325          330          335
Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
      340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
      355          360          365
Asn Val Val His Lys Thr Gly Tyr Leu Thr Glu Ser Gly Tyr Val
      370          375          380
Asn Leu Gln Arg Val Gln Met Ile Met Leu Ala Val Gly Glu Val Glu
385          390          395          400
Asp Ser Ile Phe Lys Lys Arg Lys Asp Asp Glu Asp Ser Phe Arg Arg
      405          410          415
Arg Gln Lys Glu Lys Arg Lys Arg Met Lys Arg Asp Gln Pro Ala Phe

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Ser	Pro	Val	Pro	Met	Leu	Arg	Asp	Leu	Thr	Gln	Asn	Thr	Val	Val	Ser	
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Ile	Asn	Phe	Lys	Asp	Pro	Gln	Phe	Ala	Glu	Asp	Tyr	Ile	Phe	Lys	Ala	

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<211> 2480

<212> DNA

<213> Homo sapiens

<400> 5013

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<211> 675

<212> PRT

<213> Homo sapiens

<400> 5014

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Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
      100           105           110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
      115           120           125
Ala Val Leu Thr Gly Ala Val Gln Asn Gly Leu Ala Leu Val Arg Pro
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Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
      145           150           155           160
Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
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His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
      180           185           190
Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
      195           200           205
Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
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Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
      225           230           235           240
Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
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His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
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Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
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Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
      290           295           300
Leu Ala Gly Gly Arg Val Cys Ala Val Leu Glu Gly Gly Tyr His Leu
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Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
      325           330           335
Asp Pro Ala Pro Pro Leu Ser Gly Pro Met Ala Pro Cys Gln Arg Cys
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Glu Gly Ser Ala Leu Glu Ser Ile Gln Ser Ala Arg Ala Ala Gln Ala
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 His Glu Ser Leu Ala Arg Glu Glu Ala Leu Thr Ala Leu Gly Lys Leu
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 Leu Tyr Leu Leu Asp Gly Met Leu Asp Gly Gln Val Asn Ser Gly Ile
 485 490 495
 Ala Ala Thr Pro Ala Ser Ala Ala Ala Thr Leu Asp Val Ala Val
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 Gly Gln Leu Asp Arg Pro Pro Asp Leu Ala His Asp Gly Arg Ser Leu
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<212> DNA

<213> Homo sapiens

<400> 5015

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<211> 284

<212> PRT

<213> Homo sapiens

<400> 5016

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			20				25						30		
Ala	Ala	Ile	Phe	Val	Gly	Gly	Ser	Gln	Ala	Trp	Leu	Glu	Met	Pro	Lys
		35				40						45			
Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser	Arg	Arg	Lys
	50				55			60							
Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65				70				75						80	
Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro	Lys	Gln	His
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Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe	Ser	Ala	Phe

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Gly	Asn	Arg	Lys	Asn	Leu	Lys	His	Asn	Ala	Val	Pro	Thr	Val	Phe	Ala			
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Phe	Gln	Asp	Pro	Thr	Gln	Gln	Val	Arg	Glu	Asn	Thr	Asp	Pro	Ala	Ser			
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Glu	Arg	Gly	Asn	Ala	Ser	Ser	Ser	Gln	Lys	Glu	Lys	Val	Leu	Pro	Glu			
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Tyr	Ala	Leu	Leu	Asp	Leu	Asp	Ser	Leu	Lys	Lys	Lys	Leu	Phe	Leu	Thr			
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<213> Homo sapiens
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<213> Homo sapiens

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			20				25						30		
Leu	Pro	Ala	Leu	Pro	Ser	Asp	Ala	Gly	Val	Gly	Trp	Gly	Ala	Glu	Gly
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<210> 5020
 <211> 433
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 <213> Homo sapiens

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 Pro His Gly Pro Pro Gly Pro Leu Gly Leu Leu Gly Val Arg Pro Gly
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 Met Pro Pro Gln Pro Gln Gly Pro Ala Pro Leu Arg Arg Pro Asp Ser
 65 70 75 80
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 Glu Glu Glu Leu Gln Ala Val Gln Lys Ile Val Ser Ile Thr Glu Arg
 100 105 110
 Ala Leu Lys Leu Val Ser Asp Ser Leu Ser Glu His Glu Lys Asn Lys
 115 120 125
 Asn Lys Glu Gly Asp Asp Lys Lys Glu Gly Gly Lys Asp Arg Ala Leu
 130 135 140
 Lys Gly Val Leu Arg Val Gly Val Phe Ala Lys Gly Leu Leu Leu Arg
 145 150 155 160
 Gly Asp Arg Asn Val Asn Leu Val Leu Leu Cys Ser Glu Lys Pro Ser
 165 170 175
 Lys Thr Leu Leu Ser Arg Ile Ala Glu Asn Leu Pro Lys Gln Leu Ala
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 Phe Ile Ser Pro Glu Lys Tyr Asp Ile Lys Cys Ala Val Ser Glu Ala
 195 200 205
 Ala Ile Ile Leu Asn Ser Cys Val Glu Pro Lys Met Gln Val Thr Ile
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 Thr Leu Thr Ser Pro Ile Ile Arg Glu Glu Asn Met Arg Glu Gly Asp
 225 230 235 240
 Val Thr Ser Gly Met Val Lys Asp Pro Pro Asp Val Leu Asp Arg Gln
 245 250 255
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<211> 494

<212> DNA

<213> Homo sapiens

<400> 5021

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<212> PRT

<213> Homo sapiens

<400> 5022

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Gly Asn Ser	Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu	Pro Val Tyr	
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Asn Trp Arg	Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe	Glu Gly	
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Asn Ile His	Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln	Leu Val Gln	
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Pro Thr Ile	Leu Gln Gln Lys Gly Gly Lys Gly Arg Lys Lys	Leu Arg	
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<212> DNA

<213> Homo sapiens

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960

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 35 40 45
 Leu Arg Arg Arg Met Leu Ala Ala Ala Arg Asn Gly Gly Phe Arg Ser
 50 55 60
 Ser Arg Pro Pro Ser Ala Pro Leu Pro Ser Ser Ala Ala Ser Cys Ala
 65 70 75 80
 Leu Cys Pro Thr Asp Trp Arg Arg Pro Val Pro Ile Leu Pro Leu His
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<210> 5026
 <211> 136
 <212> PRT
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 35 40 45
 Val Leu Asp Pro Lys Glu Lys Gln Lys Tyr Thr Asp Met Ala Lys Glu
 50 55 60
 Tyr Lys Asp Ala Phe Met Lys Ala Asn Pro Gly Tyr Lys Trp Cys Pro
 65 70 75 80
 Thr Thr Asn Lys Pro Val Lys Ser Pro His Pro Leu Ser Ile His Glu
 85 90 95
 Arg Asn Phe Gly Pro Ser His Leu Thr Leu Gln Glu Thr Cys Gln Ala
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 <211> 359
 <212> DNA
 <213> Homo sapiens

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<210> 5028
 <211> 68
 <212> PRT
 <213> Homo sapiens

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 Cys Arg Cys Ser
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 <211> 1440
 <212> DNA
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<211> 188

<212> PRT

<213> Homo sapiens

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<210> 5032
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 5032
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 35 40 45
 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala
 50 55 60
 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro
 65 70 75 80
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr
 85 90 95
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly
 100 105 110
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met
 115 120 125
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<210> 5033
 <211> 2888

<212> DNA

<213> Homo sapiens

<400> 5033

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<210> 5034

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5034

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 His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn
 35 40 45
 Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr
 50 55 60
 Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala
 65 70 75 80
 Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu
 85 90 95
 Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu
 100 105 110
 Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser
 115 120 125
 Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu
 130 135 140
 Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp
 145 150 155 160
 Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln
 165 170 175
 Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe
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 Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro
 195 200 205
 Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp
 210 215 220
 Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly
 225 230 235 240
 Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala
 245 250 255
 Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg
 260 265 270
 Gly Gly Asp His Val Ala Leu Gln Pro Leu Arg Ser Glu Gly Gly Pro
 275 280 285
 Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg
 290 295 300
 Asn Gly Ser Leu Ser Tyr Asp Ser Leu Leu Asn Pro Gly Ser Pro Gly
 305 310 315 320
 Gly His Ala Cys Pro Ala His Pro Ala Val Gly Val Ala Gly Tyr His
 325 330 335
 Ser Pro Tyr Leu His Pro Gly Ala Thr Gly Asp Pro Pro Arg Pro Leu
 340 345 350
 Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser
 355 360 365
 Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln
 370 375 380
 Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala
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 Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr
 405 410 415
 Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

420 425 430
 Leu Arg Tyr Gly Ser Arg Asp Asp Leu Val Ala Gly Pro Gly Phe Gly
 435 440 445
 Gly Ala Arg Asn Pro Ala Leu Gln Thr Ser Leu Ser Ser Leu Ser Ser
 450 455 460
 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp
 465 470 475 480
 Gln Ala Ser Ser Asn Ala Pro Gly Ala Pro Ala Gln Gln Trp Leu Thr
 485 490 495
 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro
 500 505 510
 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly
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 Pro Pro Arg Ala Thr Ala Leu Ala Asp Arg Ala Glu Gly Pro Pro Ser
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<210> 5035
 <211> 2002
 <212> DNA
 <213> Homo sapiens

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<210> 5036

<211> 384

<212> PRT

<213> Homo sapiens

<400> 5036

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			20					25					30		
Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
			35				40					45			
Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
			50				55				60				
Gln	Thr	Glu	Val	Leu	Leu	Gln	Pro	Asn	Pro	Ser	Ala	Arg	Val	Glu	Glu

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Phe	Leu	Tyr	Glu	Lys	Leu	Asp	Arg	Lys	Val	Pro	Ser	Arg	Val	Thr	Asn
				85					90					95	
Gly	Glu	Leu	Leu	Ala	Gln	Tyr	Met	Ala	Asp	Ala	Ala	Ser	Glu	Leu	Gly
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Pro	Thr	Thr	Pro	Tyr	Gly	Lys	Thr	Leu	Ile	Lys	Val	Ala	Glu	Ala	Glu
		115					120					125			
Lys	Gln	Leu	Gly	Ala	Ala	Glu	Arg	Asp	Phe	Ile	His	Thr	Ala	Ser	Ile
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Ser	Phe	Leu	Thr	Pro	Leu	Arg	Asn	Phe	Leu	Glu	Gly	Asp	Trp	Lys	Thr
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Ile	Ser	Lys	Glu	Ser	Arg	Leu	Leu	Gln	Asn	Arg	Arg	Leu	Asp	Leu	Asp
				165					170					175	
Ala	Cys	Lys	Ala	Arg	Leu	Lys	Lys	Ala	Lys	Ala	Ala	Glu	Ala	Lys	Ala
			180					185					190		
Thr	Leu	Trp	Asn	Asp	Glu	Val	Asp	Lys	Ala	Glu	Gln	Glu	Leu	Arg	Val
	195						200					205			
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	210					215					220				
Glu	Gly	Ile	Ser	Ser	Thr	His	Val	Asn	His	Leu	Arg	Cys	Leu	His	Glu
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Phe	Val	Lys	Ser	Gln	Thr	Thr	Tyr	Tyr	Ala	Gln	Cys	Tyr	Arg	His	Met
				245					250					255	
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		260					265					270			
His	Leu	Arg	Gly	His	His	Arg	Ala	Arg	Leu	Pro	Pro	Leu	Ser	Ser	Thr
	275						280					285			
Ser	Pro	Thr	Thr	Ala	Ala	Ala	Thr	Met	Pro	Val	Val	Pro	Ser	Val	Ala
	290					295					300				
Ser	Leu	Ala	Pro	Pro	Gly	Glu	Ala	Ser	Leu	Cys	Leu	Glu	Glu	Val	Ala
305					310					315					320
Pro	Pro	Ala	Ser	Gly	Thr	Arg	Lys	Ala	Arg	Val	Leu	Tyr	Asp	Tyr	Glu
				325					330					335	
Ala	Ala	Asp	Ser	Ser	Glu	Leu	Ala	Leu	Leu	Ala	Asp	Glu	Leu	Ile	Thr
			340					345				350			
Val	Tyr	Ser	Leu	Pro	Gly	Met	Asp	Pro	Asp	Trp	Leu	Ile	Gly	Glu	Arg
	355						360					365			
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<210> 5037

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 5037

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120

gtttgctgga gttgagggtc agccgtccct ctgcagggtg ggtcacctc ctgttaacca

180

cgccctgccc cgccccgctt cctccctctc gtgcgtcatc aagcatttgc tgttgttttc

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 2102

<210> 5038

<211> 533

<212> PRT

<213> Homo sapiens

<400> 5038

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			20					25					30		
Ile	Cys	Lys	Gln	Ser	Met	Ser	Val	Ser	Lys	Glu	Tyr	Asn	Leu	Arg	Arg
		35					40					45			
His	Tyr	Gln	Thr	Asn	His	Ser	Lys	His	Tyr	Asp	Gln	Tyr	Thr	Glu	Arg
	50					55				60					
Met	Arg	Asp	Glu	Lys	Leu	His	Glu	Leu	Lys	Lys	Gly	Leu	Arg	Lys	Tyr
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Leu	Leu	Gly	Ser	Ser	Asp	Thr	Glu	Cys	Pro	Glu	Gln	Lys	Gln	Val	Phe
				85					90					95	
Ala	Asn	Pro	Ser	Pro	Thr	Gln	Lys	Ser	Pro	Val	Gln	Pro	Val	Glu	Asp
			100					105					110		
Leu	Ala	Gly	Asn	Leu	Trp	Glu	Lys	Leu	Arg	Glu	Lys	Ile	Arg	Ser	Phe
		115					120					125			
Val	Ala	Tyr	Ser	Ile	Ala	Ile	Asp	Glu	Ile	Thr	Asp	Ile	Asn	Asn	Thr
		130				135					140				
Thr	Gln	Leu	Ala	Ile	Phe	Ile	Arg	Gly	Val	Asp	Glu	Asn	Phe	Asp	Val
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Ser	Glu	Glu	Leu	Leu	Asp	Thr	Val	Pro	Met	Thr	Gly	Thr	Lys	Ser	Gly
			165					170						175	
Asn	Glu	Ile	Phe	Ser	Arg	Val	Glu	Lys	Ser	Leu	Lys	Lys	Phe	Cys	Ile
		180						185					190		
Asp	Trp	Ser	Lys	Leu	Val	Ser	Val	Ala	Ser	Thr	Gly	Thr	Pro	Ala	Met
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Val	Asp	Ala	Asn	Asn	Gly	Leu	Val	Thr	Lys	Leu	Lys	Ser	Arg	Val	Ala
		210				215					220				
Thr	Phe	Cys	Lys	Gly	Ala	Glu	Leu	Lys	Ser	Ile	Cys	Cys	Ile	Ile	His
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Pro	Glu	Ser	Leu	Cys	Ala	Gln	Lys	Leu	Lys	Met	Asp	His	Val	Met	Asp
			245						250					255	
Val	Val	Val	Lys	Ser	Val	Asn	Trp	Ile	Cys	Ser	Arg	Gly	Leu	Asn	His
		260						265					270		
Ser	Glu	Phe	Thr	Thr	Leu	Leu	Tyr	Glu	Leu	Asp	Ser	Gln	Tyr	Gly	Ser
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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 5052

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 Trp Ser Arg Gln Gly Lys Ala Gly Lys Thr His Lys Phe Ser Ala Gly
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<210> 5058

<211> 122
 <212> PRT
 <213> Homo sapiens

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 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu
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 65 70 75 80
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<210> 5061

<211> 2462

<212> DNA

<213> Homo sapiens

<400> 5061

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<210> 5062

<211> 136

<212> PRT

<213> Homo sapiens

<400> 5062

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      35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
      50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
      85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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<210> 5064

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<212> PRT

<213> Homo sapiens

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          20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
          35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
          50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
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<211> 370

<212> DNA

<213> Homo sapiens

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<210> 5066

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5066

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Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
          35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
          50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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				85						90				95
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<210> 5067

<211> 2023

<212> DNA

<213> Homo sapiens

<400> 5067

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<211> 179

<212> PRT

<213> Homo sapiens

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Ser	Tyr	Pro	Gly	Ala	Ser	Gly	Trp	Ser	His	Asn	Pro	Thr	Gly	Gly	Pro
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<210> 5070

<211> 255

<212> PRT

<213> Homo sapiens

<400> 5070

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	210					215						220			
Lys	Trp	Thr	Ala	Phe	Ser	Leu	Gly	Leu	Lys	Val	Asn	Trp	Lys	Leu	Asn
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<210> 5071

<211> 2196

<212> DNA

<213> Homo sapiens

<400> 5071

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<210> 5072

<211> 76

<212> PRT

<213> Homo sapiens

<400> 5072

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Gly	Ser	Leu	Gln	Pro	Pro	Pro	Pro	Arg	Phe	Lys	Gln	Phe	Ser	His	Leu
			20					25					30		
Ser	Leu	Gln	Ser	Ser	Trp	Asp	Tyr	Arg	His	Ala	Gln	Pro	Cys	Pro	Ala
		35					40					45			
Asn	Phe	Cys	Asn	Phe	Ser	Arg	Asp	Gly	Phe	Ser	Leu	Ser	Arg	Asp	Gly
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<210> 5073

<211> 1712

<212> DNA

<213> Homo sapiens

<400> 5073

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<210> 5074

<211> 240

<212> PRT

<213> Homo sapiens

<400> 5074

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Met	Asp	Lys	Glu	Thr	Phe	Glu	Phe	Lys	Phe	Gly	Lys	Glu	Leu	Thr	Phe
		35					40					45			
Thr	Thr	Val	Leu	Ser	Asp	Gln	Gln	Val	Val	Glu	Leu	Ile	Pro	Gly	Gly
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Ala	Gly	Ile	Val	Val	Gly	Tyr	Gly	Asp	Arg	Ser	Arg	Phe	Ile	Gln	Leu
65					70				75					80	
Val	Gln	Lys	Ala	Arg	Leu	Glu	Glu	Ser	Lys	Glu	Gln	Val	Ala	Ala	Met
			85						90					95	
Gln	Ala	Gly	Leu	Leu	Lys	Val	Val	Pro	Gln	Ala	Val	Leu	Asp	Leu	Leu
			100					105					110		
Thr	Trp	Gln	Glu	Leu	Glu	Lys	Lys	Val	Cys	Gly	Asp	Pro	Glu	Val	Thr
		115					120					125			
Val	Asp	Ala	Leu	Arg	Lys	Leu	Thr	Arg	Phe	Glu	Asp	Phe	Glu	Pro	Ser
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Asp	Ser	Arg	Val	Gln	Tyr	Phe	Trp	Glu	Ala	Leu	Asn	Asn	Phe	Thr	Asn
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Glu	Asp	Arg	Ser	Arg	Phe	Leu	Arg	Phe	Val	Thr	Gly	Arg	Ser	Arg	Leu
			165					170						175	
Pro	Ala	Arg	Xaa	Ser	Thr	Ser	Thr	Gln	Thr	Ser	Trp	Ala	Thr	Arg	Pro
			180					185					190		
Xaa	Asp	Ala	Leu	Pro	Glu	Ser	Ser	Thr	Cys	Ser	Ser	Thr	Leu	Phe	Leu
	195						200					205			
Pro	His	Tyr	Ala	Ser	Ala	Lys	Val	Cys	Glu	Glu	Lys	Leu	Arg	Tyr	Ala
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<210> 5075

<211> 444

<212> DNA

<213> Homo sapiens

<400> 5075

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<210> 5076

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5076

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			20					25					30		
Cys	Trp	Asp	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu
		35				40					45				
Arg	Glu	Thr	Glu	Val	Ile	Thr	Ala	Val	Leu	Glu	Leu	Gly	Arg	Gly	Gly
	50					55					60				
Asp	Gln	Val	Thr	Ala	Asp	Gln	Lys	Ser	Leu	Asn	Ile	Asn	Ala	Met	Glu
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<210> 5077

<211> 2352

<212> DNA

<213> Homo sapiens

<400> 5077

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<210> 5078
 <211> 558
 <212> PRT
 <213> Homo sapiens

<400> 5078
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 Asp Gly Ser Ala Ile Gln Val Leu Lys Glu Trp Asn Met Thr Gly Lys
 50 55 60
 Lys Lys Asn Asn Lys Arg Lys Arg Ser Lys Ser Lys Gln His Gln Gly
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 Asn Lys Asp Ala Lys Asp Lys Val Glu Arg Pro Glu Ala Gly Pro Leu
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 Gln Pro Gln Pro Pro Gln Ile Gln Asn Gly Pro Met Asn Gly Cys Glu
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 Lys Asp Ser Ser Ser Thr Asp Ser Ala Asn Glu Lys Pro Ala Leu Ile
 115 120 125
 Pro Arg Glu Lys Lys Ile Ser Ile Leu Glu Glu Pro Ser Lys Ala Leu
 130 135 140
 Arg Gly Val Thr Glu Gly Asn Arg Leu Leu Gln Lys Leu Ser Leu
 145 150 155 160
 Asp Gly Asn Pro Lys Pro Ile His Gly Thr Thr Glu Arg Ser Asp Gly
 165 170 175
 Leu Gln Trp Ser Ala Glu Gln Pro Cys Asn Pro Ser Lys Pro Lys Ala
 180 185 190
 Lys Thr Ser Pro Val Lys Ser Asn Thr Pro Ala Ala His Leu Glu Ile
 195 200 205
 Lys Pro Asp Glu Leu Ala Lys Lys Arg Gly Pro Asn Ile Glu Lys Ser
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 Val Lys Asp Leu Gln Arg Cys Thr Val Ser Leu Thr Arg Tyr Arg Val
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Gln	Arg	Arg	Arg	Phe	Asn	Pro	Gln	Tyr	His	Asn	Asn	Arg	Leu	Asn	Gly
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				485					490					495	
Lys	Thr	Pro	Glu	Ala	Pro	Ala	His	Ser	Glu	Lys	Pro	Arg	Arg	Arg	Gln
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<210> 5079

<211> 1338

<212> DNA

<213> Homo sapiens

<400> 5079

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<210> 5080

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5080

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Gly	Gly	Asp	Ser	Gly	Arg	Arg	Asn	Met	Ala	Val	Ala	Asp	Leu	Ala	Leu
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Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
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Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
65					70					75				80	
Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

				85					90					95					
Tyr	Asp	Lys	Val	Ser	Gly	Asp	Met	Gln	Lys	Gln	Gly	Cys	Asp	Cys	Glu				
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Cys	Leu	Gly	Gly	Gly	Arg	Ile	Ser	His	Gln	Ser	Gln	Asp	Lys	Lys	Ile				
		115					120					125							
His	Val	Tyr	Gly	Tyr	Ser	Met	Val	Ser	Arg	Ser	Pro	Val	Pro	Pro	Cys				
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Arg	Arg	Pro	Gln	Tyr	Gln	Leu	Arg	Gly	Pro	Pro	Glu	Pro	Ala	Ala	Leu				
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<210> 5081
 <211> 561
 <212> DNA
 <213> Homo sapiens

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<210> 5082
 <211> 111
 <212> PRT
 <213> Homo sapiens

<400> 5082
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 20 25 30
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 35 40 45
 Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
 50 55 60
 Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

65					70					75				80
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu Gly
			85						90				95	
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu
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<210> 5083

<211> 1856

<212> DNA

<213> Homo sapiens

<400> 5083

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<211> 396

<212> PRT

<213> Homo sapiens

<400> 5084

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Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
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	50					55					60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
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Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
				85				90						95	
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
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Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
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Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
	130					135					140				
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
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			165					170					175		
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
		180						185					190		
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
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210		215		220											
Thr	Pro	Lys	Cys	Glu	Asp	Cys	Gln	Ser	Leu	Val	Lys	Pro	Asp	Ile	Val
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Gly	Met	Ile	Met	Gly	Leu	Gly	Gly	Gly	Met	Asp	Phe	Asp	Ser	Lys	Lys
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Ala	Tyr	Arg	Asp	Val	Ala	Trp	Leu	Gly	Glu	Cys	Asp	Gln	Gly	Cys	Leu
				325					330					335	
Ala	Leu	Ala	Glu	Leu	Leu	Gly	Trp	Lys	Lys	Glu	Leu	Glu	Asp	Leu	Val
			340					345					350		
Arg	Arg	Glu	His	Ala	Ser	Ile	Asp	Ala	Gln	Ser	Gly	Ala	Gly	Val	Pro
		355					360					365			
Asn	Pro	Ser	Thr	Ser	Ala	Ser	Pro	Lys	Lys	Ser	Pro	Pro	Pro	Ala	Lys
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<210> 5085

<211> 2964

<212> DNA

<213> Homo sapiens

<400> 5085

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<210> 5086

<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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			20					25					30		
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35					40					45			
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	50					55					60				
Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
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Glu	Thr	Glu	Ala	Val	Lys	Arg	Tyr	Asn	Asp	Tyr	Lys	Leu	Asp	Phe	Arg
			85					90					95		
Arg	Gln	Gln	Met	Gln	Asp	Phe	Phe	Leu	Ala	His	Lys	Asp	Glu	Glu	Trp
			100					105					110		
Phe	Arg	Ser	Lys	Tyr	His	Pro	Asp	Glu	Val	Gly	Lys	Arg	Arg	Gln	Glu
		115					120					125			
Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
	130					135					140				
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Ile Ile Ser Leu Cys Lys Arg Tyr Pro Gly Phe Met Arg Val Ala Leu		
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Ser Glu Pro Gln Pro Glu Arg Arg Phe Phe Arg Arg Gly Trp Val Thr		
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Phe Asp Arg Ser Val Asn Ile Lys Glu Ile Cys Trp Asn Leu Gln Asn		
385	390	395
Ile Arg Leu Arg Glu Cys Glu Leu Ser Pro Gly Val Asn Arg Asp Leu		
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Thr Ser Leu Pro Ser Gln Asn Pro Ile Leu Lys Asn Ile Thr Asp Tyr		
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<211> 465

<212> PRT

<213> Homo sapiens

<400> 5088

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Gln	Gly	Arg	Ser	Cys	Pro	Gly	Thr	Pro	Asp	Ile	Ala	Asp	Val	Ala	Glu
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Leu	Arg	Val	Glu	Leu	Thr	His	Gly	Ala	Glu	Thr	Leu	Thr	Leu	Trp	Gln
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Leu Leu Gly Pro Ser Gly Pro Ser Cys Glu Leu His Leu Ala Tyr Tyr		
420	425	430
Leu Gln Ser Gln Pro Arg Ala Gly Phe Val Gly Leu Val Asp Leu Asp		
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<212> DNA

<213> Homo sapiens

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Met	Leu	Ser	Asp	Pro	Cys	Ala	Leu	Leu	Pro	Asp	Pro	Ala	Val	Glu	Glu
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<211> 632
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<400> 5092

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Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
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Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
      100           105           110
Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
      115           120           125
Thr Cys Pro Val Arg Ala Glu Pro Leu Leu Leu Val Arg Ile Asn Ala
      130           135           140
Ser Gly Gly Leu Ile Leu Arg Met Gly Ala Ile Asn Arg Cys Leu Lys
      145           150           155           160
His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
      165           170           175
Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
      180           185           190
Leu Pro Gly Leu Glu Ser Gly Glu Gly Gly Arg Pro Arg Gly Gly Glu
      195           200           205
Ala Ser Leu Gln Gly Cys Arg Trp Gly Ala Asn Gly Leu Ala Gly Gly
      210           215           220
Ile Trp Met Trp Ser His Pro Phe Leu Leu Gly Lys Glu Gly Lys Lys
      225           230           235           240
Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
      245           250           255
Ser Arg Glu Thr Arg Ile Lys Leu Cys Ala Leu Thr Thr Met Leu Ser
      260           265           270
Ser Tyr Gln Ile Leu Ser Thr Ser Gln Glu Leu Lys Asp Thr Asp Leu
      275           280           285
Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
      290           295           300
Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
      305           310           315           320
Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
      325           330           335
Arg Leu Ser Gly Arg Tyr Pro Lys Val Gln Glu Leu Leu Gln Gly Lys
      340           345           350
Arg Ala Arg Cys Cys Leu Leu Pro Ala Pro Gly Arg Arg Arg Met Asn
      355           360           365
Gln Gly His Ala Ser Pro Gly Gly Asp Thr Asp Asp Asp Phe Arg His
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<212> DNA
<213> Homo sapiens
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480
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<211> 365

<212> PRT

<213> Homo sapiens

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 Glu Leu Met Pro Ser Ser Arg Leu Trp Ser Leu Ser Tyr Thr Lys Leu

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Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr		80
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Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val		95
	100	105
Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro		110
	115	120
Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala		125
	130	135
Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp		140
145	150	155
Leu Tyr Ala Pro Met Val Ala Gly Ala Leu Ala Arg Leu Gly Thr Val		160
	165	170
Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln		175
	180	185
His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala		190
	195	200
Gln Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu		205
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Arg Asp Val Pro Phe Ser Val His Pro Pro Pro Gln Ala Leu Tyr Trp		220
225	230	235
Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys		240
	245	250
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	260	265
Thr Val Ala Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln		270
	275	280
Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu		285
	290	295
His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser		300
305	310	315
Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala		320
	325	330
Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser		335
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<212> DNA

<213> Homo sapiens

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 <212> PRT
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 35 40 45
 Gln Gln His Phe Pro Val Gly Thr Ala Pro Gly Asn Pro Val Pro Ser
 50 55 60
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 65 70 75 80
 Arg Ala Gln Gln Gly Arg Leu Leu Arg Leu Pro Thr Ser Gln His Arg
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 Leu Ser Gly Leu Asn Pro Ser Val Leu Phe Pro Ser Trp Leu Ile Gly
 100 105 110
 Arg Pro Phe Ala Gly Thr His Cys Phe Asn Leu Thr Leu Pro Pro Pro
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<210> 5098

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5098

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 50 55 60
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 85 90 95
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<210> 5101

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5101

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<211> 436

<212> PRT

<213> Homo sapiens

<400> 5102

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 Tyr Arg Glu Arg Asp Ser Glu Arg Ala Pro Ala Ser Val Pro Glu Thr
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 Pro Thr Ala Val Thr Ala Pro His Ser Ser Ser Trp Asp Thr Tyr Tyr
 35 40 45
 Gln Pro Arg Ala Leu Glu Lys His Ala Asp Ser Ile Leu Ala Leu Ala
 50 55 60
 Ser Val Phe Trp Ser Ile Ser Tyr Tyr Ser Ser Pro Phe Ala Phe Phe
 65 70 75 80
 Tyr Leu Tyr Arg Lys Gly Tyr Leu Ser Leu Ser Lys Val Val Pro Phe
 85 90 95
 Ser His Tyr Ala Gly Thr Leu Leu Leu Leu Leu Ala Gly Val Ala Cys
 100 105 110
 Leu Arg Gly Ile Gly Arg Trp Thr Asn Pro Gln Tyr Arg Gln Phe Ile
 115 120 125
 Thr Ile Leu Glu Ala Thr His Arg Asn Gln Ser Ser Glu Asn Lys Arg
 130 135 140
 Gln Leu Ala Asn Tyr Asn Phe Asp Phe Arg Ser Trp Pro Val Asp Phe
 145 150 155 160
 His Trp Glu Glu Pro Ser Ser Arg Lys Glu Ser Arg Gly Gly Pro Ser

165 170 175
 Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr
 180 185 190
 Ala Asp Thr Leu Leu Asn Arg Val Lys Lys Leu Pro Cys Gln Ile Thr
 195 200 205
 Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
 210 215 220
 Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
 225 230 235 240
 Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
 245 250 255
 Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
 260 265 270
 Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
 275 280 285
 Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly
 290 295 300
 Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
 305 310 315 320
 Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
 325 330 335
 Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
 340 345 350
 Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr
 355 360 365
 Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val
 370 375 380
 Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr
 385 390 395 400
 Arg Thr Val Arg Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys
 405 410 415
 Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile
 420 425 430
 Ile Thr Thr Thr
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<210> 5103

<211> 1982

<212> DNA

<213> Homo sapiens

<400> 5103

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 180
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600
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660
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1860
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1980

gg
1982

<210> 5104
<211> 167
<212> PRT
<213> Homo sapiens

<400> 5104
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20 25 30
Leu His Leu Phe Pro Gln Glu Leu Gly His Phe Phe Cys Leu Trp
35 40 45
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu
50 55 60
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro
65 70 75 80
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu
85 90 95
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe
100 105 110
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys
115 120 125
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly
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Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu
145 150 155 160
Tyr Glu Arg Ala Met Cys Phe
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<210> 5105
<211> 1359
<212> DNA
<213> Homo sapiens

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180
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300
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360
ggcagccaac agggatgaat tctacagccg accctccaag ttagctgact tctgggggaa
420
caacaacgag atcctcagtg ggctggacat ggaggaaggc aaggaaggag gcacatggct
480

gggcatcagc acacgtggca agctggcagc actcaccaac tacctgcagc cgcagctgga
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 720
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 960
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 1200
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 1260
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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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		20						25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
	35						40					45			
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
	50					55				60					
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65				70					75					80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85					90						95	
Asp	Val	Leu	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu	
		100					105					110			
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
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[illegible]

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<210> 5107
<211> 1207
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
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420
cgtgtgccac catgcccggc taatttttgt atttttagta gagacagggg ttcaccgtgt
480
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540
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600
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660
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720
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780
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960
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1020
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1080
tgctcactcc ccacagggat gaccaccacc tggaaacgggg acagccacag tggcccctta
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1200

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1207

<210> 5108
<211> 83
<212> PRT
<213> Homo sapiens

<400> 5108
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20 25 30
Val Gln Trp Arg Asn Leu Ser Ser Leu Gln Pro Pro Pro Gly Phe
35 40 45
Lys Arg Phe Ser Cys Leu Ser Ser Leu Ser Ser Trp Asp Tyr Arg Arg
50 55 60
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val
65 70 75 80
Ser Pro Cys

<210> 5109
<211> 651
<212> DNA
<213> Homo sapiens

<400> 5109
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<210> 5110
<211> 206
<212> PRT

<213> Homo sapiens

<400> 5110

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      20           25           30
Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
      35           40           45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50           55           60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
      65           70           75           80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85           90           95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
      100          105          110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
      115          120          125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
      130          135          140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
      145          150          155          160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
      165          170          175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
      180          185          190
Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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<210> 5111

<211> 2247

<212> DNA

<213> Homo sapiens

<400> 5111

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420
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540

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<210> 5112

<211> 581

<212> PRT

<213> Homo sapiens

<400> 5112

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Leu	Pro	Trp	Phe	Ala	Val	Val	Leu	Gly	Tyr	Arg	Glu	Arg	Pro	Arg	Val
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Ser	Gly	Arg	Pro	Ser	Leu	Gly	Ala	Pro	Gln	Arg	Leu	Arg	Ala	Tyr	Gly
	50					55				60					
Gly	Arg	Lys	Gly	Leu	Glu	Ala	Ala	Pro	Trp	Val	Thr	Thr	Ala	Arg	Pro
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Thr	Phe	Pro	His	Val	Ala	Ala	Lys	Thr	Gly	Ser	Gly	Ala	Ser	Ile	Gly
			85					90						95	
Cys	Thr	Pro	Thr	Ser	Thr	Gln	Ala	Lys	Met	Val	Ser	Lys	Arg	Ile	Ala
		100						105					110		
Gln	Glu	Thr	Phe	Asp	Ala	Ala	Val	Arg	Glu	Asn	Ile	Glu	Glu	Phe	Ala
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Met	Gly	Pro	Glu	Glu	Ala	Val	Lys	Glu	Ala	Val	Glu	Gln	Phe	Glu	Ser
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Gln	Gly	Val	Asp	Leu	Ser	Asn	Ile	Val	Lys	Thr	Ala	Pro	Lys	Val	Ser
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Ala	Asp	Gly	Ser	Gln	Glu	Pro	Thr	His	Asp	Ile	Leu	Gln	Met	Leu	Ser
			165					170						175	
Asp	Leu	Gln	Glu	Ser	Val	Ala	Ser	Ser	Arg	Pro	Gln	Glu	Val	Ser	Ala
		180					185					190			
Tyr	Leu	Thr	Arg	Phe	Cys	Asp	Gln	Cys	Lys	Gln	Asp	Lys	Ala	Cys	Arg
	195					200					205				
Phe	Leu	Ala	Ala	Gln	Lys	Gly	Ala	Tyr	Pro	Ile	Ile	Phe	Thr	Ala	Arg
	210					215					220				
Lys	Leu	Ala	Thr	Ala	Gly	Asp	Gln	Gly	Leu	Leu	Leu	Gln	Ser	Leu	Asn
225					230				235					240	
Ala	Leu	Ser	Val	Leu	Thr	Asp	Gly	Gln	Pro	Asp	Leu	Leu	Asp	Ala	Gln
			245					250						255	
Gly	Leu	Gln	Leu	Leu	Val	Ala	Thr	Leu	Thr	Gln	Asn	Ala	Asp	Glu	Ala
		260					265					270			
Asp	Leu	Thr	Cys	Ser	Gly	Ile	Arg	Cys	Val	Arg	His	Ala	Cys	Leu	Lys
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His	Glu	Gln	Asn	Arg	Gln	Asp	Leu	Val	Lys	Ala	Gly	Val	Leu	Pro	Leu
	290					295					300				
Leu	Thr	Gly	Ala	Ile	Thr	His	His	Gly	His	His	Thr	Asp	Val	Val	Arg
305					310					315				320	
Glu	Ala	Cys	Trp	Ala	Leu	Arg	Val	Met	Thr	Phe	Asp	Asp	Asp	Ile	Arg
			325					330						335	
Val	Pro	Phe	Gly	His	Ala	His	Asn	His	Ala	Lys	Met	Ile	Val	Gln	Glu

340 345 350
 Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp
 355 360 365
 Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala
 370 375 380
 Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
 385 390 395 400
 Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
 405 410 415
 Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
 420 425 430
 Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
 435 440 445
 Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
 450 455 460
 Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
 465 470 475 480
 Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
 485 490 495
 Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
 500 505 510
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
 515 520 525
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
 530 535 540
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
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 Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg
 565 570 575
 Gly Asn Leu Ala Pro
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<210> 5113

<211> 472

<212> DNA

<213> Homo sapiens

<400> 5113

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 180
 caagagggcc cctttgctaa tgtgcacagc tctttatgcc ttttttcccta tgcctttttg
 240
 gattggagca agagatTTTT ttttccaagt aaagaacaat ttatgttccct aaatactttt
 300
 tttccttgac atgatgaagt tgagcaaggt ggctatagaa ctttttttct taattttatt
 360
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<210> 5114
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5114
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 20 25 30
 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu
 35 40 45
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala
 50 55 60
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp
 65 70 75 80
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn
 85 90 95
 Thr Phe Phe Pro
 100

<210> 5115
 <211> 1003
 <212> DNA
 <213> Homo sapiens

<400> 5115
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 120
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 180
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 300
 gggcatggga agcagatgct gctgagggtg ggtggaggga gaaatggaga cccagcacc
 360
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 420
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 480
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 600
 gagcaggtgc atgcgcagcc ggtccaccg ctttttcttc tgtacataca ttaccacagc
 660
 caccaccacc ccgaccagg tgatgaggaa gaagggccccc aacacatagc ccaccatgga
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 780

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 840
 agtcgtatgc tcatcgtccc aggtcaaggg ggcattgccag ggtggggagg gcgtcaggcc
 900
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<210> 5116

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5116

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Arg	Gly	Ser	Gln	Val	Thr	Ala	Gly	Glu	Ala	Asp	Gly	Arg	Ala	Pro	Gly
			20					25					30		
Ser	Pro	Gly	Pro	Gln	Ala	Leu	Lys	Gly	Gly	Ala	Arg	Gly	Ser	Gly	His
		35					40					45			
Val	Leu	Thr	Ser	Ser	Ser	Gly	Ser	Ala	Cys	Ala	Gly	Ser	Pro	Leu	Cys
	50					55					60				
Pro	Ala	Met	Ser	His	Leu	Gly	Val	Ser	His	Val	Arg	Glu	Gln	Leu	Leu
65					70					75				80	
Leu	Ser	Ile	Met	Gln	Phe	Leu	Ser	Trp	Val	Ile	Ala	Val	His	Gly	Glu
				85					90					95	
Gln	Val	His	Ala	Gln	Pro	Val	His	Pro	Leu	Phe	Leu	Leu	Tyr	Ile	His
			100					105					110		
Tyr	His	Ser	His	His	His	Pro	Asp	Gln	Gly	Asp	Glu	Glu	Glu	Gly	Pro
		115					120					125			
Gln	His	Ile	Ala	His	His	Gly	Val	Ala	Val	Gly	Leu	Gly	Gly	Ile	Gly
	130					135					140				
His	Ser	Gly	Val	Thr	His	Asp	Ile	Ser	Ser	Arg	Arg	Ala	Gly	Trp	Ser
145					150					155				160	
Ala	Trp	Ala	Val	Ala	Leu	Arg	Glu	Gly	Ala	Ser	Thr	Gly	Leu	Pro	Ser
				165					170					175	
Arg	Met	Leu	Ile	Val	Pro	Gly	Gln	Gly	Gly	Met	Pro	Gly	Trp	Gly	Gly
		180						185				190			
Arg	Gln	Ala	Ala	Ala	Arg	Met	Arg	Ala	Ser	Asn	Ser	Gly	Xaa	Gly	Gly
	195					200						205			
Gly	Ser	His	Gly	Ala	Gly	Xaa	Ala	His	Ala	Gly	Gly	Gly	Gly	Val	Gly
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Gly	Cys														
225															

<210> 5117

<211> 1180

<212> DNA

<213> Homo sapiens

<400> 5117

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 120
 agtgggaaaa gtgcaacagc gaacaccatc cttggagagg aaatctttga ttctagaatt
 180
 gctgccccaa ctgttaccaa gaactgtcaa aaagcatccc gggaatggca ggggagagac
 240
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 300
 aaggaaatca gccgctgcat catctcctcc tgcccagggc cccatgctat tgccttagtt
 360
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 420
 tttgggaagt cagccatgaa gcacatggtc atcttggtca ctgcgaaaga agagttggag
 480
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 600
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 780
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 840
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 900
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 960
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 1020
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<210> 5118

<211> 300

<212> PRT

<213> Homo sapiens

<400> 5118

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Thr	Gly	Ser	Gly	Lys	Ser	Ala	Thr	Ala	Asn	Thr	Ile	Leu	Gly	Glu	Glu
			20					25					30		
Ile	Phe	Asp	Ser	Arg	Ile	Ala	Ala	Gln	Ala	Val	Thr	Lys	Asn	Cys	Gln
		35					40					45			
Lys	Ala	Ser	Arg	Glu	Trp	Gln	Gly	Arg	Asp	Leu	Leu	Val	Val	Asp	Thr
	50					55				60					
Pro	Gly	Leu	Phe	Asp	Thr	Lys	Glu	Ser	Leu	Asp	Thr	Thr	Cys	Lys	Glu

65					70					75				80
Ile	Ser	Arg	Cys	Ile	Ile	Ser	Ser	Cys	Pro	Gly	Pro	His	Ala	Ile Val
				85					90					95
Leu	Val	Leu	Leu	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	Gln	Lys	Thr Val
			100					105					110	
Ala	Leu	Ile	Lys	Ala	Val	Phe	Gly	Lys	Ser	Ala	Met	Lys	His	Met Val
		115					120				125			
Ile	Leu	Phe	Thr	Arg	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Ser	Phe	His Asp
	130					135				140				
Phe	Ile	Ala	Asp	Ala	Asp	Val	Gly	Leu	Lys	Ser	Ile	Val	Lys	Glu Cys
145					150					155				160
Gly	Asn	Arg	Cys	Cys	Ala	Phe	Ser	Asn	Ser	Lys	Lys	Thr	Ser	Lys Ala
			165					170						175
Glu	Lys	Glu	Ser	Gln	Val	Gln	Glu	Leu	Val	Glu	Leu	Ile	Glu	Lys Met
			180					185					190	
Val	Gln	Cys	Asn	Glu	Gly	Ala	Tyr	Phe	Ser	Asp	Asp	Ile	Tyr	Lys Asp
	195						200					205		
Thr	Glu	Glu	Arg	Leu	Lys	Gln	Arg	Glu	Glu	Val	Leu	Arg	Lys	Ile Tyr
	210					215					220			
Thr	Asp	Gln	Leu	Asn	Glu	Glu	Ile	Lys	Leu	Val	Glu	Glu	Asp	Lys His
225					230					235				240
Lys	Ser	Glu	Glu	Glu	Lys	Glu	Lys	Glu	Ile	Lys	Leu	Leu	Lys	Leu Lys
			245					250					255	
Tyr	Asp	Glu	Lys	Ile	Lys	Asn	Ile	Arg	Glu	Glu	Ala	Glu	Arg	Asn Ile
		260						265					270	
Phe	Lys	Asp	Val	Phe	Asn	Arg	Ile	Trp	Lys	Met	Leu	Ser	Glu	Ile Trp
	275						280					285		
His	Arg	Phe	Leu	Ser	Lys	Cys	Lys	Phe	Tyr	Ser	Ser			
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<210> 5119

<211> 1450

<212> DNA

<213> Homo sapiens

<400> 5119

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120
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180
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240
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300
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360
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420
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480
agctacattg gctgtgccat tcaactctat gtttttttgt ggcttggggc cacggaatat
540

gtccttcttg ttgtcatggc tgtggattgt tatgtagcag tgtgtcatcc actgcaaaat
 600
 accatgatca tgcacccaaa actttgtctg cagctggcta tcttggcatg ggggactggc
 660
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 720
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 960
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 1020
 tttctcactc ttttctacac tgtagtaacc ccaactctta atccccctcat ctacactcta
 1080
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 aataactaac aaggttaaca tatgtttacc ttgcttaac ctaagaatag agaacaacct
 1200
 catcacaaaa agctggagat acacctccta agccaaaagt aggagagaaa gagctgcatt
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 ctgttcaggt tgagatttca gtttccttca tcaatcaatt gggcccttaa attcttcata
 1320
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 1450

<210> 5120

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5120

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Phe	Ser	Asn	Lys	Pro	His	Leu	Glu	Lys	Ile	Leu	Phe	Xaa	Ile	Ile	Phe
			20					25					30		
Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
		35					40					45			
Ser	Leu	Lys	Asp	Pro	Lys	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ser
		50				55					60				
Asn	Leu	Ser	Leu	Val	Asp	Leu	Cys	Leu	Thr	Ser	Ser	Cys	Val	Pro	Gln
65					70					75				80	
Met	Leu	Ile	Asn	Phe	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ile	Gly
				85					90					95	
Cys	Ala	Ile	Gln	Leu	Tyr	Val	Phe	Leu	Trp	Leu	Gly	Ala	Thr	Glu	Tyr
			100					105				110			
Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

115	120	125
Pro Leu Gln Asn Thr Met	Ile Met His Pro Lys Leu Cys Leu Gln Leu	
130	135	140
Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser		
145	150	155
Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp		
165	170	175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr		
180	185	190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val		
195	200	205
Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala		
210	215	220
Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr		
225	230	235
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr		
245	250	255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys		
260	265	270
Phe Leu Thr Leu Phe Tyr Thr Val Val Thr Pro Thr Leu Asn Pro Leu		
275	280	285
Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu		
290	295	300
Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn		
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<210> 5121

<211> 944

<212> DNA

<213> Homo sapiens

<400> 5121

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240
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360
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420
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660

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 780
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<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

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Glu	Val	Lys	Ile	Ser	Ser	Ala	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr
			20					25					30		
Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
		35					40					45			
Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
	50					55					60				
Lys	Cys	Ala	Leu	Asp	Phe	Phe	Arg	Gln	Ile	Lys	Arg	His	Cys	Ala	Glu
65					70				75						80
Pro	Phe	Thr	Glu	Tyr	Trp	Thr	Cys	Ile	Asp	Tyr	Thr	Gly	Gln	Gln	Leu
				85				90					95		
Phe	Arg	His	Cys	Arg	Lys	Gln	Gln	Ala	Lys	Phe	Asp	Glu	Cys	Val	Leu
			100					105					110		
Asp	Lys	Leu	Gly	Trp	Val	Arg	Pro	Asp	Leu	Gly	Glu	Leu	Ser	Lys	Val
		115					120					125			
Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
	130					135					140				
Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
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Ala	Thr	His	Gly	Ser	Arg	Phe	Tyr	Phe	Trp	Thr	Lys				
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<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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 180
 gccttgtggg gctgccaaga gggtaaagta gagagatggg tctagcttga tacagtatag
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<210> 5124

<211> 101

<212> PRT

<213> Homo sapiens

<400> 5124

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Thr	Pro	Lys	Pro	His	Leu	Ala	Ala	His	Ser	Cys	Ser	Leu	Leu	Gln	Lys
			20					25					30		
Gln	Ala	Cys	Met	Leu	Ile	Arg	Asn	Leu	Val	Ala	His	Gly	Gln	Ala	Phe
		35					40					45			
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<211> 6244

<212> DNA

<213> Homo sapiens

<400> 5125

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<211> 117
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln
 50 55 60
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu
 65 70 75 80
 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly
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 Asp Val Leu Val Val
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 <211> 55
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<212> DNA
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Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly
35 40 45
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn
50 55 60
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro
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Asp Pro Ala Cys Ala Gly Gly Gln Val Ala Gly Gly Gly Glu Pro Gly

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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu
 35 40 45
 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met
 50 55 60
 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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Val	Thr	Asn	Pro	Ser	Gln	Arg	Ala	Glu	Val	Glu	Arg	Val	Lys	Asp	Val
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Leu	Glu	Lys	Ser	Arg	Val	Leu	Lys	Gln	His	Val	Gly	Glu	Arg	Asn	Phe
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His	Ala	Phe	Tyr	Gln	Leu	Leu	Arg	Gly	Ser	Glu	Asp	Lys	Gln	Leu	His
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<211> 581

<212> DNA

<213> Homo sapiens

<400> 5133

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<210> 5134

<211> 157
 <212> PRT
 <213> Homo sapiens

<400> 5134

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His Leu Ser His Pro Asp His Tyr His His His Gly Lys Ser Asp Leu
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Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
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Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
65           70           75           80
Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
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Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
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Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
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<400> 5135

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<210> 5136

<211> 341

<212> PRT

<213> Homo sapiens

<400> 5136

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Gly	Leu	Leu	Ser	Gly	Gly	Leu	Pro	Arg	Lys	Cys	Ser	Val	Phe	His	Leu
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Phe	Val	Ala	Cys	Leu	Ser	Leu	Gly	Phe	Phe	Ser	Leu	Leu	Trp	Leu	Gln
	50					55				60					
Leu	Ser	Cys	Ser	Gly	Asp	Val	Ala	Arg	Ala	Val	Arg	Gly	Gln	Gly	Gln
65					70					75				80	
Glu	Thr	Ser	Gly	Pro	Pro	Arg	Ala	Cys	Pro	Pro	Glu	Pro	Pro	Pro	Glu

85								90					95				
His	Trp	Glu	Glu	Asp	Ala	Ser	Trp	Gly	Pro	His	Arg	Leu	Ala	Val	Leu		
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Val	Pro	Phe	Arg	Glu	Arg	Phe	Glu	Glu	Leu	Leu	Val	Phe	Val	Pro	His		
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Met	Arg	Arg	Phe	Leu	Ser	Arg	Lys	Lys	Ile	Arg	His	His	Ile	Tyr	Val		
130				135								140					
Leu	Asn	Gln	Val	Asp	His	Phe	Arg	Phe	Asn	Arg	Ala	Ala	Leu	Ile	Asn		
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Val	Gly	Phe	Leu	Glu	Ser	Ser	Asn	Ser	Thr	Asp	Tyr	Ile	Ala	Met	His		
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Asp	Val	Asp	Leu	Leu	Pro	Leu	Asn	Glu	Glu	Leu	Asp	Tyr	Gly	Phe	Pro		
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Glu	Ala	Gly	Pro	Phe	His	Val	Ala	Ser	Pro	Glu	Leu	His	Pro	Leu	Tyr		
				195				200				205					
His	Tyr	Lys	Thr	Tyr	Val	Gly	Gly	Ile	Leu	Leu	Leu	Ser	Lys	Gln	His		
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Tyr	Arg	Leu	Cys	Asn	Gly	Met	Ser	Asn	Arg	Phe	Trp	Gly	Trp	Gly	Arg		
225				230								235					
Glu	Asp	Asp	Glu	Phe	Tyr	Arg	Arg	Ile	Lys	Gly	Ala	Gly	Leu	Gln	Leu		
				245				250				255					
Phe	Arg	Pro	Ser	Gly	Ile	Thr	Thr	Gly	Tyr	Lys	Thr	Phe	Arg	His	Leu		
				260				265				270					
His	Asp	Pro	Ala	Trp	Arg	Lys	Arg	Asp	Gln	Lys	Arg	Ile	Ala	Ala	Gln		
275				280								285					
Lys	Gln	Glu	Gln	Phe	Lys	Val	Asp	Arg	Glu	Gly	Gly	Leu	Asn	Thr	Val		
290				295								300					
Lys	Tyr	His	Val	Ala	Ser	Arg	Thr	Ala	Leu	Ser	Val	Gly	Gly	Ala	Pro		
305				310								315					
Cys	Thr	Val	Leu	Asn	Ile	Met	Leu	Asp	Cys	Asp	Lys	Thr	Ala	Thr	Pro		
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<211> 3090
<212> DNA
<213> Homo sapiens
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420
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<211> 371

<212> PRT

<213> Homo sapiens

<400> 5138

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			20					25					30		
Ala	Pro	Leu	Asp	Trp	Ala	Leu	Pro	Leu	Ser	Glu	Val	Pro	Ser	Asp	Trp
		35				40					45				
Glu	Val	Asp	Asp	Leu	Leu	Cys	Ser	Leu	Leu	Ser	Pro	Pro	Ala	Ser	Leu
	50					55				60					
Asn	Ile	Leu	Ser	Ser	Ser	Asn	Pro	Cys	Leu	Val	His	His	Asp	His	Thr
65					70					75				80	
Tyr	Ser	Leu	Pro	Arg	Glu	Thr	Val	Ser	Met	Asp	Leu	Glu	Ser	Glu	Ser

												85						90						95		
Cys	Arg	Lys	Glu	Gly	Thr	Gln	Met	Thr	Pro	Gln	His	Met	Glu	Glu	Leu											
				100						105			110													
Ala	Glu	Gln	Glu	Ile	Ala	Arg	Leu	Val	Leu	Thr	Asp	Glu	Glu	Lys	Ser											
				115						120			125													
Leu	Leu	Glu	Lys	Glu	Gly	Leu	Ile	Leu	Pro	Glu	Thr	Leu	Pro	Leu	Thr											
				130						135			140													
Lys	Thr	Glu	Glu	Gln	Ile	Leu	Lys	Arg	Val	Arg	Arg	Lys	Ile	Arg	Asn											
				145						150			155			160										
Lys	Arg	Ser	Ala	Gln	Glu	Ser	Arg	Arg	Lys	Lys	Lys	Val	Tyr	Val	Gly											
				165						170			175													
Gly	Leu	Glu	Ser	Arg	Val	Leu	Lys	Tyr	Thr	Ala	Gln	Asn	Met	Glu	Leu											
				180						185			190													
Gln	Asn	Lys	Val	Gln	Leu	Leu	Glu	Glu	Gln	Asn	Leu	Ser	Leu	Leu	Asp											
				195						200			205													
Gln	Leu	Arg	Lys	Leu	Gln	Ala	Met	Val	Ile	Glu	Ile	Ser	Asn	Lys	Thr											
				210						215			220													
Ser	Ser	Ser	Ser	Thr	Cys	Ile	Leu	Val	Leu	Leu	Val	Ser	Phe	Cys	Leu											
				225						230			235			240										
Leu	Leu	Val	Pro	Ala	Met	Tyr	Ser	Ser	Asp	Thr	Arg	Gly	Ser	Leu	Pro											
				245						250			255													
Ala	Glu	His	Gly	Val	Leu	Ser	Arg	Gln	Leu	Arg	Ala	Leu	Pro	Ser	Glu											
				260						265			270													
Asp	Pro	Tyr	Gln	Leu	Glu	Leu	Pro	Ala	Leu	Gln	Ser	Glu	Val	Pro	Lys											
				275						280			285													
Asp	Ser	Thr	His	Gln	Trp	Leu	Asp	Gly	Ser	Asp	Cys	Val	Leu	Gln	Ala											
				290						295			300													
Pro	Gly	Asn	Thr	Ser	Cys	Leu	Leu	His	Tyr	Met	Pro	Gln	Ala	Pro	Ser											
				305						310			315			320										
Ala	Glu	Pro	Pro	Leu	Glu	Trp	Pro	Phe	Pro	Asp	Leu	Phe	Ser	Glu	Pro											
				325						330			335													
Leu	Cys	Arg	Gly	Pro	Ile	Leu	Pro	Leu	Gln	Ala	Asn	Leu	Thr	Arg	Lys											
				340						345			350													
Gly	Gly	Trp	Leu	Pro	Thr	Gly	Ser	Pro	Ser	Val	Ile	Leu	Gln	Asp	Arg											
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Tyr	Ser	Gly																								
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<210> 5139
<211> 1968
<212> DNA
<213> Homo sapiens
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240
tacaatgttt acagcacatt ccagagccat gaacccgagt tcgattacct gaagagttta
300
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420
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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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			20					25					30		
Asn	His	Thr	Gly	Glu	Leu	Leu	Ala	Thr	Gly	Asp	Lys	Gly	Gly	Arg	Val
		35					40					45			
Val	Ile	Phe	Gln	Arg	Glu	Gln	Glu	Ser	Lys	Asn	Gln	Val	His	Arg	Arg
	50					55				60					
Gly	Glu	Tyr	Asn	Val	Tyr	Ser	Thr	Phe	Gln	Ser	His	Glu	Pro	Glu	Phe
65					70					75				80	
Asp	Tyr	Leu	Lys	Ser	Leu	Glu	Ile	Glu	Glu	Lys	Ile	Asn	Lys	Ile	Arg
			85						90					95	
Trp	Leu	Pro	Gln	Asn	Ala	Ala	Tyr	Phe	Leu	Leu	Ser	Thr	Asn	Asp	
			100					105					110		
Lys	Thr	Val	Lys	Leu	Trp	Lys	Val	Ser	Glu	Arg	Asp	Lys	Arg	Pro	Glu
		115					120					125			
Gly	Tyr	Asn	Leu	Lys	Asp	Glu	Glu	Gly	Arg	Leu	Arg	Asp	Pro	Ala	Thr
	130					135					140				
Ile	Thr	Thr	Leu	Arg	Val	Pro	Val	Leu	Arg	Pro	Met	Asp	Leu	Met	Val
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Glu	Ala	Thr	Pro	Arg	Arg	Val	Phe	Ala	Asn	Ala	His	Thr	Tyr	His	Ile
				165					170					175	
Asn	Ser	Ile	Ser	Val	Asn	Ser	Asp	Tyr	Glu	Thr	Tyr	Met	Ser	Ala	Asp
			180					185					190		
Asp	Leu	Arg	Ile	Asn	Leu	Trp	Asn	Phe	Glu	Ile	Thr	Asn	Gln	Ser	Phe
	195						200					205			
Asn	Ile	Val	Asp	Ile	Lys	Pro	Ala	Asn	Met	Glu	Glu	Leu	Thr	Glu	Val
	210					215						220			
Ile	Thr	Ala	Ala	Glu	Phe	His	Pro	His	His	Cys	Asn	Thr	Phe	Val	Tyr
225					230					235					240
Ser	Ser	Ser	Lys	Gly	Thr	Ile	Arg	Leu	Cys	Asp	Met	Arg	Ala	Ser	Ala
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Leu	Cys	Asp	Arg	His	Thr	Lys	Phe	Phe	Glu	Glu	Pro	Glu	Asp	Pro	Ser
			260					265					270		
Asn	Arg	Ser	Phe	Phe	Ser	Glu	Ile	Ile	Ser	Ser	Ile	Ser	Asp	Val	Lys
	275						280					285			
Phe	Ser	His	Ser	Gly	Arg	Tyr	Ile	Met	Thr	Arg	Asp	Tyr	Leu	Thr	Val
	290					295					300				
Lys	Val	Trp	Asp	Leu	Asn	Met	Glu	Ser	Arg	Pro	Val	Glu	Thr	His	Gln
305					310					315					320
Val	His	Asp	Tyr	Leu	Arg	Ser	Lys	Leu	Cys	Ser	Leu	Tyr	Glu	Asn	Asp
			325						330					335	
Cys	Ile	Phe	Asp	Lys	Phe	Glu	Cys	Val	Trp	Asn	Gly	Ser	Asp	Ser	Val
			340					345					350		
Ile	Met	Thr	Gly	Ser	Tyr	Asn	Asn	Phe	Phe	Arg	Met	Phe	Asp	Arg	Asp

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Arg Ala Ile Leu Lys Pro	Arg Lys Val Cys Val	Gly Gly Lys Arg Arg
385	390	395
Lys Asp Glu Ile Ser Val	Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
405	410	415
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 <212> DNA
 <213> Homo sapiens

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 780
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 840
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 928

<210> 5142
 <211> 227
 <212> PRT

<213> Homo sapiens

<400> 5142

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          20           25           30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
          35           40           45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
          50           55           60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
65           70           75           80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
          85           90           95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
          100          105          110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
          115          120          125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
          130          135          140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
          145          150          155          160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
          165          170          175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
          180          185          190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
          195          200          205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
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Gln Val Leu
225

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<210> 5143

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 5143

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120
cgagaagact ttcgggtgcg ctgcacctcg aagcgggctg tgaccgaaat gctacaactg
180
tgcggccgct tcgtgcaaaa gctcggggac gctctgccgg aggagattcg ggagcccgct
240
ctgcgagatg cgcagtggac ttttgaatca gctgtgcaag agaatatcag cattaatggg
300
caagcatggc aggaagcttc agataattgt tttatggatt ctgacatcaa agtacttgaa
360
gatcagtttg atgaaatcat agtagatata gccacaaaac gtaagcagta tcccagaaa
420

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 540
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 600
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 660
 ctccagagga ttcaccaaga agtcttttcc agttgtcata ggaaaccaga tgctaaacct
 720
 gagaacttta taacacagat agaaaccaca ccaacagaga ctgcttccag gaaaacctct
 780
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 840
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 900
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 960
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 1020
 atatgatata atattgtatt tccttactgt tttatctatt gtaaataaaa agcattttta
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 1200
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 1260
 gctgtataat gatttttctg ttacatgctg aaaagtaatt atcagttctg cacagcagca
 1320
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 1380
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 1440
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 1560
 cataatttga cttggaacta atggtttctt tttagggttt cttatttatt tctttacaaa
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<210> 5144

<211> 218

<212> PRT

<213> Homo sapiens

<400> 5144

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Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
			20				25					30			
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu

35					40					45					
Glu	Asp	Gln	Phe	Asp	Glu	Ile	Ile	Val	Asp	Ile	Ala	Thr	Lys	Arg	Lys
50					55					60					
Gln	Tyr	Pro	Arg	Lys	Ile	Leu	Glu	Cys	Val	Ile	Lys	Thr	Ile	Lys	Ala
65					70					75					80
Lys	Gln	Glu	Ile	Leu	Lys	Gln	Tyr	His	Pro	Val	Val	His	Pro	Leu	Asp
85					90					95					
Leu	Lys	Tyr	Asp	Pro	Asp	Pro	Ala	Pro	His	Met	Glu	Asn	Leu	Lys	Cys
100					105					110					
Arg	Gly	Glu	Thr	Val	Ala	Lys	Glu	Ile	Ser	Glu	Ala	Met	Lys	Ser	Leu
115					120					125					
Pro	Ala	Leu	Ile	Glu	Gln	Gly	Glu	Gly	Phe	Ser	Gln	Val	Leu	Arg	Met
130					135					140					
Gln	Pro	Val	Ile	His	Leu	Gln	Arg	Ile	His	Gln	Glu	Val	Phe	Ser	Ser
145					150					155					160
Cys	His	Arg	Lys	Pro	Asp	Ala	Lys	Pro	Glu	Asn	Phe	Ile	Thr	Gln	Ile
165					170					175					
Glu	Thr	Thr	Pro	Thr	Glu	Thr	Ala	Ser	Arg	Lys	Thr	Ser	Asp	Met	Val
180					185					190					
Leu	Lys	Arg	Lys	Gln	Thr	Lys	Asp	Cys	Pro	Gln	Arg	Lys	Trp	Tyr	Pro
195					200					205					
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210					215										

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<210> 5145
<211> 1885
<212> DNA
<213> Homo sapiens
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ttgtccaagt tgggctgggt cttggtacac gtggttcggc ccagctccac gtccaagaag
180
tagttcacc cagctacgat ctgcttgcg ggcgcgacca cctgcagcgc ggggtgtgg
240
tacatgtcgt tgctggcttt gttgtactcg ccgacggcct cgctcggta tcgcagcggg
300
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360
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420
ctggccgtga gccccgggc cggctccagt cccggcaagc cgccgcgct ggtgggaggc
480
cccatggacg ccagcgtgga ggaggagggt gtgcggcgtg cactggactt tgccgtcggg
540
gagtacaaca aagccggcaa cgacatgtac cacagccgcg cgctgcaggt ggtgcgcgc
600
cgcaagcagg tgacaatgtg ggcagctcat gaagatcgta gctgggggtga actacttctt
660
ggacgtggag ctgggcccga ccacgtgtac caagaccag cccaacttgg acaactgcc
720

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 780
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 840
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 cctggactgg tggccctgc cttggggaag gtctcccat gtgcctgcac caggagacag
 960
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 1020
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 1080
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 1140
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 1200
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 1260
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 1320
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 1680
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 1740
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 1860
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 1885

<210> 5146

<211> 312

<212> PRT

<213> Homo sapiens

<400> 5146

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Cys	Ala	Leu	Ala	Gly	His	Asn	Asp	Leu	Val	Glu	Ile	His	Leu	Ser	Gly
			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40				45				
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

[illegible]

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<210> 5147
<211> 2943
<212> DNA
<213> Homo sapiens
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120
gccaccgct tcgtgctggc ggccggcagc gccgtctttg acgccatgtt caacggcggc
180
atggccacca cgtcggccga gatcgagctg cgggacgtgg agcccgccgc cttcctggcg
240
ctgctgagat ttctatattc agatgaagtt caaatgggtc cagaaacagt tatgaccact
300
ctttatactg ccaagaaata cgcagtccca gccttggaag cacactgtgt agaattttct
360
accaaacatc ttagggcaga taatgccttt atgttactta ctcaggctcg attatttgat
420
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gaacctcagc ttgctagtct ttgtctagat acaatagaca aaagcacaat ggatgcaata
480
agtgcagaag ggtttactga tattgatata gatacactct gtgcagtttt agagagagac
540
acactcagta ttcgagaaaag tcgacttttt ggagctgttg tacgctgggc agaagcagaa
600
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660
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720
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1260
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1320
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1860
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1980
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2040

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 2280
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 2340
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 2820
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<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

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		20					25					30			
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
		35				40					45				
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
	50					55					60				
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70					75					80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90					95		
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
			100					105				110			
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg

		115				120					125				
Val	Glu	Tyr	Ile	Asp	Arg	Pro	Arg	Cys	Cys	Leu	Arg	Gly	Lys	Glu	Cys
	130					135					140				
Cys	Ile	Asn	Arg	Phe	Gln	Gln	Val	Glu	Ser	Arg	Trp	Gly	Tyr	Ser	Gly
145					150					155					160
Thr	Ser	Asp	Arg	Ile	Arg	Phe	Thr	Val	Asn	Arg	Arg	Ile	Ser	Ile	Val
				165						170					175
Gly	Phe	Gly	Leu	Tyr	Gly	Ser	Ile	His	Gly	Pro	Thr	Asp	Tyr	Gln	Val
			180						185					190	
Asn	Ile	Gln	Ile	Ile	Glu	Tyr	Glu	Lys	Lys	Gln	Thr	Leu	Gly	Gln	Asn
		195						200				205			
Asp	Thr	Gly	Phe	Ser	Cys	Asp	Gly	Thr	Ala	Asn	Thr	Phe	Arg	Val	Met
	210					215					220				
Phe	Lys	Glu	Pro	Ile	Glu	Ile	Leu	Pro	Asn	Val	Cys	Tyr	Thr	Ala	Cys
225					230					235					240
Ala	Thr	Leu	Lys	Gly	Pro	Asp	Ser	His	Tyr	Gly	Thr	Lys	Gly	Leu	Lys
				245					250					255	
Lys	Val	Val	His	Glu	Thr	Pro	Ala	Ala	Ser	Lys	Thr	Val	Phe	Phe	Phe
			260					265					270		
Phe	Ser	Ser	Pro	Gly	Asn	Asn	Asn	Gly	Thr	Ser	Ile	Glu	Asp	Gly	Gln
		275					280					285			
Ile	Pro	Glu	Ile	Ile	Phe	Tyr	Thr								
	290					295									

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<210> 5149
<211> 533
<212> DNA
<213> Homo sapiens
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120
gataacatcc ccaaagaaga aaaacatagg cgagaagagg aagctatgaa gcagataacc
180
cagctcctac cagaggacct cagaaaggag ctctatgaac tttgggaaga gtacgagacc
240
caatctagtg cagaagccaa atttgtgaag cagctagacc aatgtgaaat gattcttcaa
300
gcatctgaat atgaagacct tgaacacaaa cctgggagac tgcaagactt ctatgattcc
360
acagcaggaa aattcaatca ccctgagata gtccagcttg tttctgaact tgaggcagaa
420
agaagcacta acatagctgc agctgccagt gagccacact cctgagacac tctctaaatt
480
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533

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<210> 5150
<211> 154
<212> PRT
<213> Homo sapiens
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<400> 5150

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 Lys Asp Arg Cys Val Arg Leu Ala Leu Val His Asp Met Ala Glu Cys
 20 25 30
 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys
 35 40 45
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro
 50 55 60
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr
 65 70 75 80
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu
 85 90 95
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly
 100 105 110
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro
 115 120 125
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn
 130 135 140
 Ile Ala Ala Ala Ala Ser Glu Pro His Ser
 145 150

<210> 5151

<211> 2273

<212> DNA

<213> Homo sapiens

<400> 5151

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 120
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 180
 gcgagcgcgc gcgaggcccc ggcttctgtt gtcccgtttg tgcgggtgaa gcgggagcgc
 240
 gaggtcgatg aggactcgga gcctgagcgg gaggtgcgag caaagaatgg ccgagtggat
 300
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 360
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 420
 ctggtgtgtg gcaagtactt tcaagctttt cacccttccc tacaggccgg ggtttgaagt
 480
 ctacgccta cattcacagt gtccagtta gccaccatgt tttctcaac ctccacacc
 540
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 660
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 780

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900
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960
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1020
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1140
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<210> 5152

<211> 324

<212> PRT

<213> Homo sapiens

<400> 5152

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          20           25           30
Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
          35           40           45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
          50           55           60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65           70           75           80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
          85           90           95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
          100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
          115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145           150           155           160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
          195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
          210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225           230           235           240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
          275          280          285
Leu Ile Phe Cys Ile Lys Ile Phe Thr Lys Asn Asn Phe Phe Val Glu
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<210> 5153

<211> 640

<212> DNA

<213> Homo sapiens

<400> 5153

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<210> 5154

<211> 162

<212> PRT

<213> Homo sapiens

<400> 5154

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Leu	Glu	Arg	Thr	Thr	Ser	Pro	Thr	Ile	Pro	Ser	Phe	Tyr	Thr	Phe	Ser
		20						25					30		
Ala	Cys	His	Arg	Trp	Leu	Gln	Glu	Gly	Ser	Thr	Leu	Gly	Gly	Thr	Gly
	35					40						45			
Glu	Leu	Ala	Phe	Gly	Ala	Asp	Thr	Leu	Leu	Thr	Leu	Pro	Phe	Leu	Leu
	50				55						60				
Gln	Gly	Val	Pro	Phe	Pro	Gln	Asn	Glu	Ala	Asn	Ala	Met	Asp	Val	Val
65					70					75				80	
Val	Gln	Phe	Ala	Ile	His	Arg	Leu	Gly	Phe	Gln	Pro	Gln	Asp	Ile	Ile
		85						90					95		
Ile	Tyr	Ala	Trp	Ser	Ile	Gly	Gly	Phe	Thr	Ala	Thr	Trp	Ala	Ala	Met
		100						105					110		
Ser	Tyr	Pro	Asp	Val	Ser	Ala	Met	Ile	Leu	Asp	Ala	Ser	Phe	Asp	Asp
		115					120					125			
Leu	Val	Pro	Leu	Ala	Leu	Lys	Val	Met	Pro	Asp	Ser	Trp	Ser	Glu	Cys
	130					135					140				
Ser	Ser	Gln	Ala	Cys	Pro	Ser	Trp	Glu	Gly	Val	Gly	Trp	Asn	Trp	Glu
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Leu	Phe														

<210> 5155

<211> 1402

<212> DNA

<213> Homo sapiens

<400> 5155

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180
gcctgtggca cctgagccag ccattatcat caccagcact tccatgagct acaagctgga
240
cccactgcag tcctcctgac aactgaaat cagagcctgc acacagagca gcagatgctt
300
caatgtaaag gtcatttcca ggtccttgac aggcgtgcat ctgggccaga tccatggcaa
360
taaccttcag gttgaggcta gagggttca gatgggcagc ttcgaaatgac aggagcaagg
420
aacaagaggc cggaaagga ggggtgacatt ttcagcatct ataagatcaa ctttagaaat
480
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540
gcttctcatc agcacatgat tgggtgcaggg ttctgaggat gattttgaga tgttccctga
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tgtggtcttg tgaggagatt tcatgacgga tggcaggaaa ctctgtggag agattttctga
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agacactcct gagctcccaa caccgggcaa ctctcttcca gaggatattg ggggtggaggg
720
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<210> 5156

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5156

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 20           25           30
Ser Gly Gly Leu Gln Trp Val Gln Leu Val Ala His Gly Ser Ala Gly
 35           40           45
Asp Asp Asn Gly Trp Leu Arg Cys His Arg Pro Pro Trp Gln Gly Leu
 50           55           60
Gly Asp Asn Glu Leu Asp Gly Cys Ser Gly Glu Val Asn Val Ser Gln
 65           70           75           80
Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
 85           90           95
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Arg Asn Phe Trp Thr Leu
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<210> 5157

<211> 1310

<212> DNA

<213> Homo sapiens

<400> 5157

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cggggcaggg gaattgcata tgcaggaaag agatgcagca tgctctcac tctgagtgc
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240
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420
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660
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720
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780
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840

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<210> 5158

<211> 82

<212> PRT

<213> Homo sapiens

<400> 5158

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Thr	Ser	Ser	Cys	Leu	Ser	Ser	Asn	Ala	Ser	Arg	Met	Leu	His	Cys	Ser
			20					25					30		
Gln	Glu	Leu	Ala	Ile	Arg	Tyr	Val	Leu	Cys	Gly	Gln	Ser	Ala	Ser	Gln
		35					40					45			
Thr	His	Arg	Cys	Ser	Pro	Ala	Trp	Leu	Ser	Trp	Asp	Leu	Asn	Leu	Leu
	50					55					60				
Val	Lys	Ser	Phe	Ser	Leu	Ser	Glu	Val	Pro	Ser	Leu	Gln	Met	Leu	Asn
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Leu	Ala														

<210> 5159

<211> 3233

<212> DNA

<213> Homo sapiens

<400> 5159

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 240
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<211> 849

<212> PRT

<213> Homo sapiens

<400> 5160

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Thr	His	Asp	Arg	Met	Lys	Asp	Val	Lys	Arg	His	Ile	Thr	Ala	Arg	Leu
			20						25					30	
Asp	Trp	Gly	Asn	Glu	Gln	Leu	Gly	Leu	Asp	Leu	Val	Pro	Arg	Lys	Glu


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Leu Ser Met Leu Ile Met Phe Leu Leu Gly Gly Val Ile Gln Met Glu
  65              70              75              80
His Arg His Arg Lys Lys Asp Thr Pro Val Gln Ala Ser Ser His His
      85              90              95
Leu Phe Val Gln Met Lys Ser Leu Met Cys Ser Asn Leu Gly Glu Glu
      100              105              110
Leu Glu Val Ile Phe Ser Leu Phe Asp Ser Lys Glu Asn Arg Pro Ile
      115              120              125
Ser Glu Arg Phe Phe Leu Arg Leu Asn Arg Asn Gly Leu Pro Lys Ala
      130              135              140
Pro Asp Lys Pro Glu Arg His Cys Ser Leu Phe Val Asp Leu Gly Ser
  145              150              155              160
Ser Glu Leu Arg Lys Asp Ile Tyr Ile Thr Val His Ile Ile Arg Ile
      165              170              175
Gly Arg Met Gly Ala Gly Glu Lys Lys Asn Ala Cys Ser Val Gln Tyr
      180              185              190
Arg Arg Pro Phe Gly Cys Ala Val Leu Ser Ile Ala Asp Leu Leu Thr
      195              200              205
Gly Glu Thr Lys Asp Asp Leu Ile Leu Lys Val Tyr Met Cys Asn Thr
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Glu Ser Glu Trp Tyr Gln Ile His Glu Asn Ile Ile Lys Lys Leu Asn
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Ala Arg Tyr Asn Leu Thr Gly Ser Asn Ala Gly Leu Ala Val Ser Leu
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      260              265              270
Val Phe Ser His Gly Val Ser Ile Thr Arg Lys Leu Gly Phe Ser Asn
      275              280              285
Ile Ile Met Pro Gly Glu Met Arg Asn Asp Leu Tyr Ile Thr Ile Glu
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  305              310              315              320
Val Thr Met Phe Ile Val Asp Ser Ser Gly Gln Thr Leu Lys Asp Phe
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Pro Ile Pro Val Asp Lys Phe Arg Gly Ala His Ile Arg Phe Glu Phe
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Arg His Cys Ser Thr Lys Glu Lys Gly Glu Lys Lys Leu Phe Gly Phe
  385              390              395              400
Ser Phe Val Pro Leu Met Gln Glu Asp Gly Arg Thr Leu Pro Asp Gly
      405              410              415
Thr His Glu Leu Ile Val His Lys Cys Glu Glu Asn Thr Asn Leu Gln
      420              425              430
Asp Thr Thr Arg Tyr Leu Lys Leu Pro Phe Ser Lys Gly Ile Phe Leu
      435              440              445
Gly Asn Asn Asn Gln Ala Met Lys Ala Thr Lys Glu Ser Phe Cys Ile
      450              455              460
Thr Ser Phe Leu Cys Ser Thr Lys Leu Thr Gln Asn Gly Asp Met Leu

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465 470 475 480
 Asp Leu Leu Lys Trp Arg Thr His Pro Asp Lys Ile Thr Gly Cys Leu
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 Ser Lys Leu Lys Glu Ile Asp Gly Ser Glu Ile Val Lys Phe Leu Gln
 500 505 510
 Asp Thr Leu Asp Thr Leu Phe Gly Ile Leu Asp Glu Asn Ser Gln Lys
 515 520 525
 Tyr Gly Ser Lys Val Phe Asp Ser Leu Val His Ile Ile Asn Leu Leu
 530 535 540
 Gln Asp Ser Lys Phe His His Phe Lys Pro Val Met Asp Thr Tyr Ile
 545 550 555 560
 Glu Ser His Phe Ala Gly Ala Leu Ala Tyr Arg Asp Leu Ile Lys Val
 565 570 575
 Leu Lys Trp Tyr Val Asp Arg Ile Thr Glu Ala Glu Arg Gln Glu His
 580 585 590
 Ile Gln Glu Val Leu Lys Ala Gln Glu Tyr Ile Phe Lys Tyr Ile Val
 595 600 605
 Gln Ser Arg Arg Leu Phe Ser Leu Ala Thr Gly Gly Gln Asn Glu Glu
 610 615 620
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 625 630 635 640
 Leu Ser Gln Glu Ser Lys Gly Ser Gly Ala Leu Ser Gln Ser Gln Ala
 645 650 655
 Val Phe Leu Ser Ser Phe Pro Ala Val Tyr Ser Glu Leu Leu Lys Leu
 660 665 670
 Phe Asp Val Arg Glu Val Ala Asn Leu Val Gln Asp Thr Leu Gly Ser
 675 680 685
 Leu Pro Thr Ile Leu His Val Asp Asp Ser Leu Gln Ala Ile Lys Leu
 690 695 700
 Gln Cys Ile Gly Lys Thr Val Glu Ser Gln Leu Tyr Thr Asn Pro Asp
 705 710 715 720
 Ser Arg Tyr Ile Leu Leu Pro Val Val Leu His His Leu His Ile His
 725 730 735
 Leu Gln Glu Gln Lys Asp Leu Ile Met Cys Ala Arg Ile Leu Ser Asn
 740 745 750
 Val Phe Cys Leu Ile Lys Lys Asn Ser Ser Glu Lys Ser Val Leu Glu
 755 760 765
 Glu Ile Asp Val Ile Val Ala Ser Leu Leu Asp Ile Leu Leu Arg Thr
 770 775 780
 Ile Leu Glu Ile Thr Ser Arg Pro Gln Pro Ser Ser Ser Ala Met Arg
 785 790 795 800
 Phe Gln Phe Gln Asp Val Thr Gly Glu Phe Val Ala Cys Leu Leu Ser
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<210> 5161
 <211> 1645
 <212> DNA
 <213> Homo sapiens

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 1645

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 <211> 207
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Val Gln Ala Asn Thr Pro Ala Ser Leu Val Gly Leu Arg Phe Gly
 50 55 60
 Asp Gln Leu Leu Gln Ile Asp Gly Arg Asp Cys Ala Gly Trp Ser Ser
 65 70 75 80
 His Lys Ala His Gln Val Val Lys Lys Ala Ser Gly Asp Lys Ile Val
 85 90 95
 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys
 100 105 110
 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val
 115 120 125
 Ser Leu Val Lys Gly Ser Ser Ala Ala Cys Asn Gly Leu Leu Thr Asn
 130 135 140
 His Tyr Val Cys Glu Val Asp Gly Gln Asn Val Ile Gly Leu Lys Asp
 145 150 155 160
 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu
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<210> 5163
 <211> 1187
 <212> DNA
 <213> Homo sapiens

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 1080
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<210> 5164

<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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Arg	His	Trp	Ala	Trp	Ser	Gly	Asp	Thr	Phe	Ser	Gly	Gln	Phe	Val	Leu
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Val	Asp	Arg	Asp	Gly	Gln	Val	Tyr	Gln	Gly	Ser	Phe	His	Asp	Asn	Lys
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Gly	Asp	Trp	Val	Arg	Asp	Arg	Arg	Gln	Gly	His	Gly	Val	Leu	Arg	Cys
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Gly Leu Gly Ser Met Ala His Cys Ser Gly Val Thr Tyr Tyr Gly Leu					
145	150	155	160		
Trp Ile Asn Gly His Pro Ala Glu Gln Ala Thr Arg Ile Val Ile Leu					
	165	170	175		
Gly Pro Glu Val Met Glu Val Ala Gln Gly Ser Pro Phe Ser Val Asn					
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210					

<210> 5165

<211> 2370

<212> DNA

<213> Homo sapiens

<400> 5165

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<210> 5166

<211> 521

<212> PRT

<213> Homo sapiens

<400> 5166

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4348

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	35	40	45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln			
	50	55	60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu			
65	70	75	80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser			
	85	90	95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys			
	100	105	110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His			
	115	120	125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys			
	130	135	140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu			
145	150	155	160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu			
	165	170	175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu			
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<210> 5169
 <211> 609
 <212> DNA
 <213> Homo sapiens

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<210> 5170
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 5170
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 35 40 45
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg
 50 55 60
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp
 65 70 75 80
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp
 85 90 95
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys
 100 105 110
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr
 115 120 125
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp
 130 135 140
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe
 145 150 155 160
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln
 165 170 175
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser
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<210> 5171
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 5171
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<210> 5172
<211> 104
<212> PRT
<213> Homo sapiens

<400> 5172
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35 40 45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
50 55 60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
65 70 75 80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
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Arg Asp Pro Gly Val Leu Ile Ala
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<210> 5173
<211> 557
<212> DNA
<213> Homo sapiens

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<210> 5174
<211> 93
<212> PRT

<213> Homo sapiens

<400> 5174

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Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
          35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
          50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
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<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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120
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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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          20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
          35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
          50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
          85           90

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<210> 5177

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5177

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tccggcgaga gagagctggg gtgctggggg gcggggaagt tggggagcag aggccgcttg
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<211> 92

<212> PRT

<213> Homo sapiens

<400> 5178

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Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
          20          25          30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Gly Gly Gly
  35          40          45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
  50          55          60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
  65          70          75          80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
          85          90

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<210> 5179

<211> 1527

<212> DNA

<213> Homo sapiens

<400> 5179

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1527

<210> 5180

<211> 444

<212> PRT

<213> Homo sapiens

<400> 5180

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 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu
 35 40 45
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro
 50 55 60
 Asn Pro Lys Arg Met Gln Glu Leu Leu Arg Asn Lys Lys Arg Lys Leu
 65 70 75 80
 Val Val Ile Ser Asp Pro His Ile Lys Ile Glu Pro Asp Tyr Ser Val
 85 90 95
 Tyr Val Lys Ala Lys Asp Gln Gly Phe Phe Val Lys Asn Gln Glu Gly
 100 105 110
 Glu Asp Phe Glu Gly Val Cys Trp Pro Gly Leu Ser Ser Tyr Leu Asp
 115 120 125
 Phe Thr Asn Pro Lys Val Arg Glu Trp Tyr Ser Ser Leu Phe Ala Phe
 130 135 140
 Pro Val Tyr Gln Gly Ser Thr Asp Ile Leu Phe Leu Trp Asn Asp Met
 145 150 155 160
 Asn Glu Pro Ser Val Phe Arg Gly Pro Glu Gln Thr Met Gln Lys Asn
 165 170 175
 Ala Ile His His Gly Asn Trp Glu His Arg Glu Leu His Asn Ile Tyr
 180 185 190
 Gly Phe Tyr His Gln Met Ala Thr Ala Glu Gly Leu Ile Lys Arg Ser
 195 200 205
 Lys Gly Lys Glu Arg Pro Phe Val Leu Thr Arg Ser Phe Phe Ala Gly
 210 215 220
 Ser Gln Lys Tyr Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp
 225 230 235 240
 Ser Asn Leu Lys Ile Ser Ile Pro Met Leu Leu Thr Leu Ser Ile Thr
 245 250 255
 Gly Ile Ser Phe Cys Gly Ala Asp Ile Gly Gly Phe Ile Gly Asn Pro
 260 265 270
 Glu Thr Glu Leu Leu Val Arg Trp Tyr Gln Ala Gly Ala Tyr Gln Pro
 275 280 285
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 Arg Tyr Gly Leu Leu Pro Tyr Trp Tyr Ser Leu Phe Tyr His Ala His
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 Val Ala Ser Gln Pro Val Met Arg Pro Leu Trp Val Glu Phe Pro Asp
 340 345 350
 Glu Leu Lys Thr Phe Asp Met Glu Asp Glu Tyr Met Leu Gly Ser Ala
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 Leu Leu Val His Pro Val Thr Glu Pro Lys Ala Thr Thr Val Asp Val
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 Phe Leu Pro Gly Ser Asn Glu Val Trp Tyr Asp Tyr Lys Thr Phe Ala
 385 390 395 400
 His Trp Glu Gly Gly Cys Thr Val Lys Ile Pro Val Ala Leu Asp Thr

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Ile	Pro	Val	Phe	Gln	Arg	Gly	Gly	Ser	Val	Ile	Pro	Ile	Lys
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<210> 5181

<211> 4961

<212> DNA

<213> Homo sapiens

<400> 5181

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<210> 5182

<211> 697

<212> PRT

<213> Homo sapiens

<400> 5182

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			20					25					30		
Met	Gly	Ala	Leu	Ala	Ala	Ile	Leu	Ala	Tyr	Trp	Phe	Thr	His	Arg	Pro
		35					40					45			
Lys	Ala	Leu	Gln	Pro	Pro	Cys	Asn	Leu	Leu	Met	Gln	Ser	Glu	Glu	Val
	50					55				60					
Glu	Asp	Ser	Gly	Gly	Ala	Arg	Arg	Ser	Val	Ile	Gly	Ser	Gly	Pro	Gln
65					70				75					80	
Leu	Leu	Thr	His	Tyr	Tyr	Asp	Asp	Ala	Arg	Thr	Met	Tyr	Gln	Val	Phe
			85						90					95	
Arg	Arg	Gly	Leu	Ser	Ile	Ser	Gly	Asn	Gly	Pro	Cys	Leu	Gly	Phe	Arg
			100					105					110		
Lys	Pro	Lys	Gln	Pro	Tyr	Gln	Trp	Leu	Ser	Tyr	Gln	Glu	Val	Ala	Asp
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Arg	Ala	Glu	Phe	Leu	Gly	Ser	Gly	Leu	Leu	Gln	His	Asn	Cys	Lys	Ala
	130					135					140				
Cys	Thr	Asp	Gln	Phe	Ile	Gly	Val	Phe	Ala	Gln	Asn	Arg	Pro	Glu	Trp
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Ile	Ile	Val	Glu	Leu	Ala	Cys	Tyr	Thr	Tyr	Ser	Met	Val	Val	Val	Pro
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Ala	Asp	Ile	Ser	Thr	Val	Ile	Val	Asp	Lys	Pro	Gln	Lys	Ala	Val	Leu
		195					200					205			
Leu	Leu	Glu	His	Val	Glu	Arg	Lys	Glu	Thr	Pro	Gly	Leu	Lys	Leu	Ile
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Ile	Leu	Met	Asp	Pro	Phe	Glu	Glu	Ala	Leu	Lys	Glu	Arg	Gly	Gln	Lys
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Cys	Gly	Val	Val	Ile	Lys	Ser	Met	Gln	Ala	Val	Glu	Asp	Cys	Gly	Gln

					245					250				255	
Glu	Asn	His	Gln	Ala	Pro	Val	Pro	Pro	Gln	Pro	Asp	Asp	Leu	Ser	Ile
			260					265					270		
Val	Cys	Phe	Thr	Ser	Gly	Thr	Thr	Gly	Asn	Pro	Lys	Gly	Ala	Met	Leu
		275					280					285			
Thr	His	Gly	Asn	Val	Val	Ala	Asp	Phe	Ser	Gly	Phe	Leu	Lys	Val	Thr
	290					295					300				
Glu	Ser	Gln	Trp	Ala	Pro	Thr	Cys	Ala	Asp	Val	His	Ile	Ser	Tyr	Leu
305					310					315					320
Pro	Leu	Ala	His	Met	Phe	Glu	Arg	Met	Val	Gln	Ser	Val	Val	Tyr	Cys
				325					330					335	
His	Gly	Gly	Arg	Val	Gly	Phe	Phe	Gln	Gly	Asp	Ile	Arg	Leu	Leu	Ser
			340					345					350		
Asp	Asp	Met	Lys	Ala	Leu	Cys	Pro	Thr	Ile	Phe	Pro	Val	Val	Pro	Arg
		355					360					365			
Leu	Leu	Asn	Arg	Met	Tyr	Asp	Lys	Ile	Phe	Ser	Gln	Ala	Asn	Thr	Pro
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Val	Arg	Ser	Gly	Ile	Ile	Arg	Asn	Asp	Ser	Ile	Trp	Asp	Glu	Leu	Phe
				405					410					415	
Phe	Asn	Lys	Ile	Gln	Ala	Ser	Leu	Gly	Gly	Cys	Val	Arg	Met	Ile	Val
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Gly	Ala	Pro	Leu	Pro	Cys	Asn	His	Ile	Lys	Leu	Val	Asp	Val	Glu	Glu
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Leu	Asn	Tyr	Trp	Ala	Cys	Lys	Gly	Glu	Gly	Glu	Ile	Cys	Val	Arg	Gly
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Pro	Asn	Val	Phe	Lys	Gly	Tyr	Leu	Lys	Asp	Pro	Asp	Arg	Thr	Lys	Glu
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Ala	Leu	Asp	Ser	Asp	Gly	Trp	Leu	His	Thr	Gly	Asp	Ile	Gly	Lys	Trp
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Leu	Pro	Ala	Gly	Thr	Leu	Lys	Ile	Ile	Asp	Arg	Lys	Lys	His	Ile	Phe
545					550					555					560
Lys	Leu	Ala	Gln	Gly	Glu	Tyr	Val	Ala	Pro	Glu	Lys	Ile	Glu	Asn	Ile
				565					570					575	
Tyr	Ile	Arg	Ser	Gln	Pro	Val	Ala	Gln	Ile	Tyr	Val	His	Gly	Asp	Ser
			580					585					590		
Leu	Lys	Ala	Phe	Leu	Val	Gly	Ile	Val	Val	Pro	Asp	Pro	Glu	Val	Met
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680

685

695

<210> 5183
 <211> 2466
 <212> DNA
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<400> 5183
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<210> 5184

<211> 395

<212> PRT

<213> Homo sapiens

<400> 5184

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			20					25				30			
Asp	Asp	Ala	Phe	Ile	Asn	Pro	His	Leu	Ala	Lys	Ile	Phe	Glu	Arg	Val
		35					40				45				
Arg	Gln	Ser	Ala	Asp	Phe	Met	Pro	Leu	Lys	Gln	Met	Met	Lys	Thr	Leu

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 Glu Arg Pro Phe Ala Ala Ala Ser Ile Gly Gln Val His Leu Ala Arg
 85 90 95
 Met Lys Gly Gly Arg Glu Val Ala Met Lys Ile Gln Tyr Pro Gly Val
 100 105 110
 Ala Gln Ser Ile Asn Ser Asp Val Asn Asn Leu Met Ala Val Leu Asn
 115 120 125
 Met Ser Asn Met Leu Pro Glu Gly Leu Phe Pro Glu His Leu Ile Asp
 130 135 140
 Val Leu Arg Arg Glu Leu Ala Leu Glu Cys Asp Tyr Gln Arg Glu Ala
 145 150 155 160
 Ala Cys Ala Arg Lys Phe Arg Asp Leu Leu Lys Gly His Pro Phe Phe
 165 170 175
 Tyr Val Pro Glu Ile Val Asp Glu Leu Cys Ser Pro His Val Leu Thr
 180 185 190
 Thr Glu Leu Val Ser Gly Phe Pro Leu Asp Gln Ala Glu Gly Leu Ser
 195 200 205
 Gln Glu Ile Arg Asn Glu Ile Cys Tyr Asn Ile Leu Val Leu Cys Leu
 210 215 220
 Arg Glu Leu Phe Glu Phe His Phe Met Gln Thr Asp Pro Asn Trp Ser
 225 230 235 240
 Asn Phe Phe Tyr Asp Pro Gln Gln His Lys Val Ala Leu Leu Asp Phe
 245 250 255
 Gly Ala Thr Arg Glu Tyr Asp Arg Ser Phe Thr Asp Leu Tyr Ile Gln
 260 265 270
 Ile Ile Arg Ala Ala Ala Asp Arg Asp Arg Glu Thr Val Arg Ala Lys
 275 280 285
 Ser Ile Glu Met Lys Phe Leu Thr Gly Tyr Glu Val Lys Val Met Glu
 290 295 300
 Asp Ala His Leu Asp Ala Ile Leu Ile Leu Gly Glu Ala Phe Ala Ser
 305 310 315 320
 Asp Glu Pro Phe Asp Phe Gly Thr Gln Ser Thr Thr Glu Lys Ile His
 325 330 335
 Asn Leu Ile Pro Val Met Leu Arg His Arg Leu Val Pro Pro Pro Glu
 340 345 350
 Glu Thr Tyr Ser Leu His Arg Lys Met Gly Gly Ser Phe Leu Ile Cys
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 Ser Lys Leu Lys Ala Arg Phe Pro Cys Lys Ala Met Phe Glu Glu Ala
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 385 390 395

<210> 5185

<211> 1657

<212> DNA

<213> Homo sapiens

<400> 5185

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1657

<210> 5186

<211> 243
 <212> PRT
 <213> Homo sapiens

<400> 5186
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 35 40 45
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser
 50 55 60
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg
 65 70 75 80
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr
 85 90 95
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn
 100 105 110
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val
 115 120 125
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala
 130 135 140
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu
 145 150 155 160
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys
 165 170 175
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu
 180 185 190
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp
 195 200 205
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser
 210 215 220
 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ser Glu
 225 230 235 240
 Pro His Ser

<210> 5187
 <211> 1712
 <212> DNA
 <213> Homo sapiens

<400> 5187
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1560
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1620
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<210> 5188

<211> 489

<212> PRT

<213> Homo sapiens

<400> 5188

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 20 25 30
 Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
 35 40 45
 Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
 50 55 60
 Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
 65 70 75 80
 Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
 85 90 95
 Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
 100 105 110
 Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
 115 120 125
 Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
 130 135 140
 Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
 145 150 155 160
 Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
 165 170 175
 Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
 180 185 190
 Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
 195 200 205
 Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
 210 215 220
 Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
 225 230 235 240
 Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
 245 250 255
 Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Glu Arg Glu Arg Lys Arg
 260 265 270
 Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
 275 280 285
 Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
 290 295 300
 Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
 305 310 315 320
 Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
 325 330 335
 Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
 340 345 350
 Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
 355 360 365
 Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
 370 375 380
 Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
 385 390 395 400
 Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
 405 410 415
 Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

420 425 430
 Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser
 435 440 445
 Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile
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 Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys
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 Leu Phe Gly Asn Tyr Arg Pro His Leu
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<210> 5189
 <211> 323
 <212> DNA
 <213> Homo sapiens

<400> 5189
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 aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat
 180
 gaagttaatc attccttaat tcctgtttat ttatatattca tttttgcttt ctttttactc
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 300
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 323

<210> 5190
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5190
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 Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn
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 Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser
 35 40 45
 Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu
 50 55 60
 Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys
 65 70 75 80
 Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His
 85 90 95
 Pro Cys Ala Ala
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<210> 5191
 <211> 1632
 <212> DNA
 <213> Homo sapiens

<400> 5191
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 1632

<210> 5192
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 5192
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 35 40 45
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe
 50 55 60
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro
 65 70 75 80
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met
 85 90 95
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser
 100 105 110
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys
 115 120 125
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys
 130 135 140
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys
 145 150 155 160
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala
 165 170 175
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His
 180 185 190
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu
 195 200 205
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp
 210 215 220
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn
 225 230 235 240
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn
 245 250 255
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly
 260 265 270
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu
 275 280 285
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro
 290 295 300
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro
 305 310 315 320
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys
 325 330 335
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

	340		345		350
Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg					
	355		360		365
Phe Arg Glu Glu Ala Thr Pro Gln Arg					
	370		375		

<210> 5193
 <211> 554
 <212> DNA
 <213> Homo sapiens

<400> 5193
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 180
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<210> 5194
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 5194
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 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly
 35 40 45
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg
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 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala
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<210> 5195
 <211> 964

<212> DNA

<213> Homo sapiens

<400> 5195

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<210> 5196

<211> 267

<212> PRT

<213> Homo sapiens

<400> 5196

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20           25           30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35           40           45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50           55           60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65		70		75		80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val						
	85		90		95	
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu						
	100		105		110	
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg						
	115		120		125	
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val						
	130		135		140	
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val						
	145		150		155	
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala						
	165		170		175	
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu						
	180		185		190	
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His						
	195		200		205	
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn						
	210		215		220	
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr						
	225		230		235	
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp						
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<210> 5197

<211> 1045

<212> DNA

<213> Homo sapiens

<400> 5197

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660

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<210> 5198

<211> 283

<212> PRT

<213> Homo sapiens

<400> 5198

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			20					25					30		
Glu	Glu	Glu	Glu	Glu	Val	Val	Lys	Asp	Gly	Arg	Pro	Lys	Trp	Asn	Ser
			35				40					45			
Trp	Asp	Pro	Arg	Arg	Gln	Arg	Gln	Leu	Ser	Met	Ser	Ser	Ala	Asp	Ser
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Ala	Asp	Ala	Lys	Arg	Thr	Arg	Glu	Glu	Gly	Lys	Asp	Trp	Ala	Glu	Ala
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Val	Gly	Ala	Ser	Arg	Val	Val	Arg	Lys	Ala	Pro	Asp	Pro	Gln	Pro	Pro
				85					90					95	
Pro	Arg	Lys	Leu	His	Gly	Trp	Ala	Pro	Gly	Pro	Asp	Tyr	Gln	Lys	Ser
		100					105						110		
Ser	Met	Gly	Ser	Met	Phe	Arg	Gln	Gln	Ser	Ile	Glu	Asp	Lys	Glu	Asp
	115						120					125			
Lys	Pro	Pro	Pro	Arg	Gln	Lys	Phe	Ile	Gln	Ser	Glu	Met	Ser	Glu	Ala
	130					135					140				
Val	Glu	Arg	Ala	Arg	Lys	Arg	Arg	Glu	Glu	Glu	Arg	Arg	Ala	Arg	
145					150					155				160	
Glu	Glu	Arg	Leu	Ala	Ala	Cys	Ala	Ala	Lys	Leu	Lys	Gln	Leu	Asp	Gln
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Lys	Cys	Lys	Gln	Ala	Arg	Lys	Ala	Gly	Glu	Ala	Arg	Lys	Gln	Ala	Glu
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Lys	Glu	Val	Pro	Trp	Ser	Pro	Ser	Ala	Glu	Lys	Ala	Ser	Pro	Gln	Glu
	195					200						205			
Asn	Gly	Pro	Ala	Val	His	Lys	Gly	Ser	Pro	Glu	Phe	Pro	Ala	Gln	Glu
	210					215					220				
Thr	Pro	Thr	Thr	Phe	Pro	Glu	Glu	Ala	Pro	Thr	Val	Ser	Pro	Ala	Val
225				230						235				240	
Ala	Gln	Ser	Asn	Ser	Ser	Glu	Glu	Glu	Ala	Arg	Glu	Ala	Gly	Ser	Pro
			245						250					255	
Ala	Gln	Glu	Phe	Lys	Tyr	Gln	Lys	Ser	Leu	Pro	Pro	Arg	Phe	Gln	Arg

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270

<210> 5199
 <211> 1332
 <212> DNA
 <213> Homo sapiens

<400> 5199
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<210> 5200

<211> 358

<212> PRT

<213> Homo sapiens

<400> 5200

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 20          25          30
Leu Thr Ala Trp Gly Glu Asp Gly Thr Pro Leu Gly His Thr Arg Phe
 35          40          45
Gln Gly Ala Asp Asp Val Thr Ser Val Leu Phe Ser Pro Ser Cys Pro
 50          55          60
Thr Lys Leu Tyr Ala Ser His Gly Glu Thr Ile Ser Val Leu Asp Val
 65          70          75          80
Arg Ser Leu Lys Asp Ser Leu Asp His Phe His Val Asn Glu Glu Glu
 85          90          95
Ile Asn Cys Leu Ser Leu Asn Gln Thr Glu Asn Leu Leu Ala Ser Ala
100          105          110
Asp Asp Ser Gly Ala Ile Lys Ile Leu Asp Leu Glu Asn Lys Lys Val
115          120          125
Ile Arg Ser Leu Lys Arg His Ser Asn Ile Cys Ser Ser Val Ala Phe
130          135          140
Arg Pro Gln Arg Pro Gln Ser Leu Val Ser Cys Gly Leu Asp Met Gln
145          150          155          160
Val Met Leu Trp Ser Leu Gln Lys Ala Arg Pro Leu Trp Ile Thr Asn
165          170          175
Leu Gln Glu Asp Glu Thr Glu Glu Met Glu Gly Pro Gln Ser Pro Gly
180          185          190
Gln Leu Leu Asn Pro Ala Leu Ala His Ser Ile Ser Val Ala Ser Cys
195          200          205
Gly Asn Ile Phe Ser Cys Gly Ala Glu Asp Gly Lys Val Arg Ile Phe
210          215          220
Arg Val Met Gly Val Lys Cys Glu Gln Glu Leu Gly Phe Lys Gly His
225          230          235          240
Thr Ser Gly Val Ser Gln Val Cys Phe Leu Pro Glu Ser Tyr Leu Leu
245          250          255
Leu Thr Gly Gly Asn Asp Gly Lys Ile Thr Leu Trp Asp Ala Asn Ser
260          265          270
Glu Val Glu Lys Lys Gln Lys Ser Pro Thr Lys Arg Thr His Arg Lys
275          280          285
Lys Pro Lys Arg Gly Thr Cys Thr Lys Gln Gly Gly Asn Thr Asn Ala
290          295          300
Ser Val Thr Asp Glu Glu Glu His Gly Asn Ile Leu Pro Lys Leu Asn
305          310          315          320
Ile Glu His Gly Glu Lys Val Asn Trp Leu Leu Gly Thr Lys Ile Lys
325          330          335
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355

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<212> DNA
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6104

<210> 5202

<211> 108

<212> PRT

<213> Homo sapiens

<400> 5202

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Val Ala Val Gly Gly Gln Val His Cys Pro Glu Val Leu Ser Ala Leu
 20           25           30
Ser Gln Gly Ser Leu Glu Arg Gly Leu Ala Gly Leu Gly Gly His Arg
 35           40           45
Pro His Ser Gly Leu Pro Ala Gln Gly Arg Arg Pro Glu Pro Val Trp
 50           55           60
Pro Cys Ser Pro Gly Gln Ser Trp Ala Cys Arg Val Phe Leu Pro Gly
 65           70           75           80
Arg Cys Arg Cys Trp Pro Ser Ala Gly Gly Arg Arg Trp Glu Ser Trp
 85           90           95
Ile Phe Cys Phe Phe Leu Ser Phe Phe Phe Leu Arg
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<210> 5203

<211> 1863

<212> DNA

<213> Homo sapiens

<400> 5203

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420
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480
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600
gatcagattg ctgaaacact atgggaacag gtattgaagc ccctgggtga taatttgatg
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720
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780
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900

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 1020
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 1080
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 1140
 atcactgttt caagaaccag attggaaaga caatgaagcc tttattgagc cactacatta
 1200
 aaagtatata ttgctttact gccttcaata ccagtattac atcaatgcat gtatcagaaa
 1260
 cttcacagaa attacatggc aactcttgta gctaagaaag taattctgag gtgtacattt
 1320
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 1863

<210> 5204

<211> 249

<212> PRT

<213> Homo sapiens

<400> 5204

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 20 25 30
 Glu Leu Pro His Pro Lys Ser Met Leu Gln Ala Thr Ala Glu Ala Asn
 35 40 45
 Asn Leu Ala Ala Val Ala Gly Ala Arg Asp Thr Tyr Cys Lys Ser Met
 50 55 60
 Glu Gln Val Cys Gly Gly Asp Lys Pro Tyr Ile Ala Pro Ser Asp Leu
 65 70 75 80
 Glu Arg Lys His Leu Asp Leu Lys Glu Val Ala Ile Lys Gln Phe Arg
 85 90 95
 Ser Val Lys Lys Met Gly Gly Asp Glu Phe Cys Arg Arg Tyr Gln Asp

	100		105		110	
Gln	Leu	Glu	Ala	Glu	Ile	Glu
	115		120		125	
Asn	Asp	Gly	Lys	Asn	Ile	Phe
	130		135		140	
Phe	Ala	Val	Met	Phe	Ala	Met
	145		150		155	
Ile	Gly	Leu	Asn	Ser	Ile	Ala
			165		170	
Ala	Leu	Ile	Phe	Leu	Cys	Thr
	180		185		190	
Phe	Arg	Glu	Ile	Gly	Thr	Val
	195		200		205	
Glu	Gln	Val	Leu	Lys	Pro	Leu
	210		215		220	
Arg	Gln	Ser	Val	Thr	Asn	Ser
	225		230		235	
Ser	His	His	Ala	Arg	Leu	Lys
			245			

<210> 5205
 <211> 2011
 <212> DNA
 <213> Homo sapiens

<400> 5205
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 360
 gtgtacacgc tgtggtccta tctgatctt ctgccaacct ttacaacatg gcctctggtg
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 660
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 720
 gggctctgtcc agatggactc caccctgcag ggagacatga ggcacatgac cctggagggg
 780
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 840

gaagacacca gcaccagggg cctgaaccaa gactccacag atagcaaaac gcttcaagaa
 900
 caaatggatg agctgttaca gcaatgcttc ttacatgcct tgaagtgccg agtcaaaaag
 960
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 1380
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 1860
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 1980
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 2011

<210> 5206

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5206

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Val	Ala	Lys	Ala	Phe	Arg	Val	Lys	Ser	Asn	Thr	Ala	Ile	Lys	Gly	Ser
			20					25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
		35					40					45			
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn

50					55					60					
Ile	Val	Lys	Leu	Tyr	Ala	His	Lys	Gly	Asp	Ala	Val	Thr	Val	Tyr	Val
65					70					75					80
Ser	Gly	Gly	Asn	Pro	Ile	Leu	Phe	Glu	Leu	Glu	Lys	Asn	Leu	Tyr	Pro
				85					90					95	
Thr	Val	Tyr	Thr	Leu	Trp	Ser	Tyr	Pro	Asp	Leu	Leu	Pro	Thr	Phe	Thr
			100					105					110		
Thr	Trp	Pro	Leu	Val	Leu	Glu	Lys	Leu	Val	Gly	Gly	Ala	Asp	Leu	Met
		115				120					125				
Leu	Pro	Gly	Leu	Val	Met	Pro	Pro	Ala	Gly	Leu	Pro	Gln	Val	Gln	Lys
	130				135					140					
Gly	Asp	Leu	Cys	Ala	Ile	Ser	Leu	Val	Gly	Asn	Arg	Ala	Pro	Val	Ala
145				150					155					160	
Ile	Gly	Val	Ala	Ala	Met	Ser	Thr	Ala	Glu	Met	Leu	Thr	Ser	Gly	Leu
			165					170						175	
Lys	Gly	Arg	Gly	Phe	Ser	Val	Leu	His	Thr	Tyr	Gln	Asp	His	Leu	Trp
		180					185				190				
Arg	Ser	Gly	Asn	Lys	Ser	Ser	Pro	Pro	Ser	Ile	Ala	Pro	Leu	Ala	Leu
	195				200					205					
Asp	Ser	Ala	Asp	Leu	Ser	Glu	Glu	Lys	Gly	Ser	Val	Gln	Met	Asp	Ser
	210				215					220					
Thr	Leu	Gln	Gly	Asp	Met	Arg	His	Met	Thr	Leu	Glu	Gly	Glu	Glu	Glu
225				230					235					240	
Asn	Gly	Glu	Val	His	Gln	Gly	Thr								
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<210> 5207
<211> 594
<212> DNA
<213> Homo sapiens
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120
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180
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240
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300
cgccgccttt acctgcctgc tgtcgtcatg aacggccacg tgcacgacct ccagatcctc
360
gactttccac ccatcagcgc ctccctgtc aatacgctcc aggagtgggc agacacctgc
420
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480
agctttgagt acgtcaagac catccgccag cagatcctgg agacgagggg gatcggaacc
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tcagagacgc ccatcatcat cgtgggcaac aagcgggacc tgcagcgcgg acgc
594
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<210> 5208

<211> 136
 <212> PRT
 <213> Homo sapiens

<400> 5208

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Met Val Ser Thr Tyr Arg Val Ala Val Leu Gly Ala Arg Gly Val Gly
 1           5           10           15
Lys Ser Ala Ile Val Arg Gln Phe Leu Tyr Asn Glu Phe Ser Glu Val
          20           25           30
Cys Val Pro Thr Thr Ala Arg Arg Leu Tyr Leu Pro Ala Val Val Met
          35           40           45
Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
          50           55           60
Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
65           70           75           80
Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
          85           90           95
Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
          100          105          110
Thr Arg Val Ile Gly Thr Ser Glu Thr Pro Ile Ile Ile Val Gly Asn
          115          120          125
Lys Arg Asp Leu Gln Arg Gly Arg
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<210> 5209
 <211> 1592
 <212> DNA
 <213> Homo sapiens

<400> 5209

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240
agtgtggagg aggagtgagc cggatgcccc acacaccgcc agtgtcatat caaagagctg
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360
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420
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600
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720

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cccaccaaac catggtcctt taaggcacgc tctgtcctc ctcattgccc agcagtaggg
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 1320
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 1380
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 1440
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 1560
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 1592

<210> 5210

<211> 85

<212> PRT

<213> Homo sapiens

<400> 5210

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			20					25				30			
Ala	Leu	Leu	Ile	Leu	Tyr	Ala	Leu	Leu	Ser	Arg	Leu	Thr	Gly	Ser	Arg
			35				40				45				
Ala	Ser	Gly	Ala	Gln	Leu	Glu	Ala	Lys	Val	Arg	Gly	Leu	Glu	Arg	Gln
	50					55				60					
Val	Glu	Glu	Leu	Arg	Trp	Arg	Gln	Arg	Arg	Ala	Ala	Lys	Gly	Ala	Arg
65					70					75				80	
Ser	Val	Glu	Glu	Glu											
				85											

<210> 5211

<211> 602

<212> DNA

<213> Homo sapiens

<400> 5211
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 120
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 180
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 240
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 300
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 420
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 480
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 602

<210> 5212
 <211> 104
 <212> PRT
 <213> Homo sapiens

<400> 5212
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 Arg Ile Lys Ile Asn Glu Glu Phe Lys Asn Asn Lys Ser Glu Thr Ser
 35 40 45
 Ser Lys Lys Ile Glu Glu Leu Met Lys Ile Gly Ser Asp Val Glu Leu
 50 55 60
 Leu Leu Arg Thr Ser Val Ile Gln Gly Ile His Thr Asp His Asn Thr
 65 70 75 80
 Leu Lys Leu Val Pro Arg Lys Asp Leu Leu Val Glu Asn Val Pro Tyr
 85 90 95
 Cys Asp Ala Pro Thr Gln Lys Gln
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<210> 5213
 <211> 4387
 <212> DNA
 <213> Homo sapiens

<400> 5213
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 gagacgcaac tgcagagcat tttcgaagag gtggtgaaaa cggaagttat agaagaggct
 180
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3240

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<210> 5218

<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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Ser	Trp	Ala	Met	Gly	Ser	Leu	Arg	Pro	Glu	Ala	Pro	Leu	Leu	Ser	Ser
			20					25					30		
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly
		35					40					45			
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg
	50					55					60				
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu
65					70				75					80	
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser
				85				90						95	
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile
			100					105					110		
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser

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Arg	His	Pro	Glu	His	Ala	Gly	Arg	Ile	Gln	Ser	Ile	Trp	Ser	Arg	Leu	
130					135					140						
Gln	Glu	Arg	Gly	Leu	Arg	Ser	Gln	Cys	Glu	Cys	Leu	Arg	Gly	Arg	Lys	
145					150					155					160	
Ala	Ser	Leu	Glu	Glu	Leu	Gln	Ser	Val	His	Ser	Glu	Arg	His	Val	Leu	
165					170					175						
Leu	Tyr	Gly	Thr	Asn	Pro	Leu	Ser	Arg	Leu	Lys	Leu	Asp	Asn	Gly	Lys	
180					185					190						
Leu	Ala	Gly	Leu	Leu	Ala	Gln	Arg	Met	Phe	Val	Met	Leu	Pro	Cys	Gly	
195					200					205						
Gly	Val	Gly	Val	Asp	Thr	Asp	Thr	Ile	Trp	Asn	Glu	Leu	His	Ser	Ser	
210					215					220						
Asn	Ala	Ala	Arg	Trp	Ala	Ala	Gly	Ser	Val	Thr	Asp	Leu	Ala	Phe	Lys	
225					230					235					240	
Val	Ala	Ser	Arg	Glu	Leu	Lys	Asn	Gly	Phe	Ala	Val	Val	Arg	Pro	Pro	
245					250					255						
Gly	His	His	Ala	Asp	His	Ser	Thr	Ala	Met	Gly	Phe	Cys	Phe	Asn		
260					265					270						
Ser	Val	Ala	Ile	Ala	Cys	Arg	Gln	Leu	Gln	Gln	Gln	Ser	Lys	Ala	Ser	
275					280					285						
Lys	Ile	Leu	Ile	Val	Asp	Trp	Asp	Val	His	His	Gly	Asn	Ala	Thr	Gln	
290					295					300						
Gln	Thr	Phe	Tyr	Gln	Asp	Pro	Ser	Val	Leu	Tyr	Ile	Ser	Leu	His	Arg	
305					310					315					320	
His	Asp	Asp	Gly	Asn	Phe	Phe	Pro	Gly	Ser	Gly	Ala	Val	Asp	Glu	Val	
325					330					335						
Gly	Ala	Gly	Ser	Gly	Glu	Gly	Phe	Asn	Val	Asn	Val	Ala	Trp	Ala	Gly	
340					345					350						
Gly	Leu	Asp	Pro	Pro	Met	Gly	Asp	Pro	Glu	Tyr	Leu	Ala	Ala	Phe	Arg	
355					360					365						
Ile	Val	Val	Met	Pro	Ile	Ala	Arg	Glu	Phe	Ser	Pro	Asp	Leu	Val	Leu	
370					375					380						
Val	Ser	Ala	Gly	Phe	Asp	Ala	Ala	Glu	Gly	His	Pro	Ala	Pro	Leu	Gly	
385					390					395					400	
Gly	Tyr	His	Val	Ser	Ala	Lys	Cys	Phe	Gly	Tyr	Met	Thr	Gln	Gln	Leu	
405					410					415						
Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly	Gly	His	
420					425					430						
Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala	Ala	Leu	
435					440					445						
Leu	Gly	Asn	Arg	Val	Asp	Pro	Leu	Ser	Glu	Glu	Gly	Trp	Lys	Gln	Lys	
450					455					460						
Pro	Asn	Leu	Asn	Ala	Ile	Arg	Ser	Leu	Glu	Ala	Val	Ile	Arg	Val	His	
465					470					475					480	
Ser	Lys	Tyr	Trp	Gly	Cys	Met	Gln	Arg	Leu	Ala	Ser	Cys	Pro	Asp	Ser	
485					490					495						
Trp	Val	Pro	Arg	Val	Pro	Gly	Ala	Asp	Lys	Glu	Glu	Val	Glu	Ala	Val	
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Thr	Ala	Leu	Ala	Ser	Leu	Ser	Val	Gly	Ile	Leu	Ala	Glu	Asp	Arg	Pro	

<210> 5219
<211> 1212
<212> DNA
<213> Homo sapiens

<400> 5219
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120
aacgtctccc tgctcacccc acccccgcgc agacgcagtg ctgagcacac agctaccgga
180
caaagagtga cgcccggagc tggagttatg gcggctacgg agccgatctt ggcggccact
240
gggagtcccc cggcgggtgcc accggagaaa ctggaaggag ccggttcgag ctgagcccc
300
gagcgttaact gtgtgggctc ctcgctgcca gaggcctcac cgctgcccc tgagccttcc
360
agtcccaacg ccgcgggtccc tgaagccatc cctacgcccc gagctgcggc ctccgcggcc
420
ctggagctgc ctctcggggc cgcacccgtg agcgtagcgc ctcaggccga agctgaagcg
480
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540
cggcagttcc gctaccagga tgccggcggg ccccgaggag ctttccggca gctgcgggag
600
ctgtcccgcc agtggctgcg gcctgacatc cgcaccaagg agcagatcgt ggagatgctg
660
gtgcaagagc agctgctcgc catcctgccc gaggcggctc gggcccggcg gatccgcgcg
720
cgcacggatg tgcgcatcac tggtgagcg gtggagctgc gggcggccag ggccggggcg
780
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840
ttaatgaaaa atgagttttg gcagcgcctg tggctctggtg tgtctctttc attcgttctt
900
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960
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1020
aacctaggtt atccctctac cacacatggg aagtttttca cctgggctcc caaggacca
1080
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1200
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1212

<210> 5220
<211> 179
<212> PRT
<213> Homo sapiens

<400> 5220

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Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
 20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
 35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
 50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
 65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
 85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
 100          105          110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
 115          120          125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
 130          135          140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
 145          150          155          160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
 165          170          175
Ile Thr Gly

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<210> 5221

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5221

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120
gacacctccc tgaccagaga ccctctggtt atagaacttg gccaaaagca ggtgattcca
180
ggtctggagc agagtcttct cgacatgtgt gtgggagaga agcgaagggc aatcattcct
240
tctcacttgg cctatggaaa acggggattt ccaccatctg tcccagggaac taaagacaac
300
ctgatgaggc cacctggcat gacctccagc agccagtaac ttgttaggga agagacctgc
360
ttgggccaca tgggtctgct gcctgtgcca ccacctttcc cagaacactg gacttctttc
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480
tcagccacca tctgtcc
497

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<210> 5222

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5222

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Ala	Glu	Pro	Ala	Ala	Phe	Gly	Asp	Thr	Leu	His	Ile	His	Tyr	Thr	Gly
		20					25						30		
Ser	Leu	Val	Asp	Gly	Arg	Ile	Ile	Asp	Thr	Ser	Leu	Thr	Arg	Asp	Pro
	35					40					45				
Leu	Val	Ile	Glu	Leu	Gly	Gln	Lys	Gln	Val	Ile	Pro	Gly	Leu	Glu	Gln
	50				55					60					
Ser	Leu	Leu	Asp	Met	Cys	Val	Gly	Glu	Lys	Arg	Arg	Ala	Ile	Ile	Pro
65				70					75					80	
Ser	His	Leu	Ala	Tyr	Gly	Lys	Arg	Gly	Phe	Pro	Pro	Ser	Val	Pro	Gly
			85					90					95		
Thr	Lys	Asp	Asn	Leu	Met	Arg	Pro	Pro	Gly	Met	Thr	Ser	Ser	Ser	Gln
			100					105					110		

<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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120
tcagagaaga caggacgggg acagttgagg gaaggctgga gagatagtca tcagcctatc
180
atgtgctcct acaagctggt gactgtgaag tttgaggtct gggggcttca gaccagagtg
240
gaacaatttg tacacaaggt ggtccgagac attctgctga ttggacatag acaggctttt
300
gcatgggttg atgagtggta tgatatgaca atggatgatg ttcgggaata cgagaaaaac
360
atgcatgaac aaaccaacat aaaagtttgc aatcagcatt cctcccctgt ggatgacata
420
gagagtcatg cccaacaag tacatgacaa tggatgaagt ccgagaattt gaacgagcca
480
ctcaggaagc caccaacaag aaaatcggca ttttcccacc tgcaatttct atctccagca
540
tccccctgct gccttcttcc gtccgcagtg cgccttctag tgctccatcc acccctctct
600
ccacagacgc acccgaattt ctgtccgttc ccaaaga
637

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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys


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      1           5           10           15
Phe Ile Asp Ile Ala Cys Asp Glu Ile Pro Glu Arg Tyr Tyr Lys Glu
      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

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<210> 5225
 <211> 394
 <212> DNA
 <213> Homo sapiens

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<400> 5225
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120
caggcctggt cagacggaca tgcccaaggg aacagatagt accaggacag gggaccctgg
180
tctgaagggg cgatagcctg gccccagtg gaaacagccc ctcccaaccc tggcggcaga
240
cagggagggt cggcaggtat gtgagatgca aacctggggg actgcccac cccagtgga
300
tgtgaggaca cgggtgggttc aggaagtgga gtgacaaatg ggctgtgctg gacttgcttt
360
ccccacatga aggttaggaa ccaagagaac ggcc
394

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<210> 5226
 <211> 113
 <212> PRT
 <213> Homo sapiens

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<400> 5226
Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
      1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

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50		55		60											
Gly	Pro	Leu	Ser	Trp	Tyr	Tyr	Leu	Phe	Pro	Trp	Ala	Cys	Pro	Ser	Asp
65					70					75					80
Gln	Ala	Cys	Gln	Asp	Ser	Ala	Tyr	Val	Ser	Pro	Ser	Pro	Ser	Ser	Ala
			85						90					95	
Leu	Gly	Pro	Ser	Leu	Pro	Gln	Pro	Gln	Leu	Pro	Pro	Pro	Gly	Ser	Pro
		100						105					110		
Pro															

<210> 5227

<211> 2366

<212> DNA

<213> Homo sapiens

<400> 5227

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cagctgccag tgagatgttc tgcagctgtt tgatcctctc gctgaagtcg gacaccact
120
ggatgacggg catgccggca ggcaccgtgt agaaggccag tgtggtaacc ttacctgtct
180
acctgaactt caccgtgca gacctcatct tcaccgtgga cttcgaaatt gctacaaagg
240
aggatcctcg cagcttctac gagcgggggtg tcgcagtctt gtgcacagag taaacttttc
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480
cttacggagc tgccctcgtc tactggagca gaagaaatag acctaatctt cctcaagggg
540
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600
aaactagaag ctgtcagtga caataacttg gaattagtca atgaaattct tgaagacatc
660
actcctctaa taaatgtgga tgaaaatgtg gcagaattgg ttggtatact caaagaacct
720
cactccagt cactgttgga ggcccatgat attgtggcat caaagtgtta tgattcacct
780
ccatcaagcc cagaaatgaa taattcttct atcaataatc agttattacc agtagatgcc
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960
ctacttcagt tgggagatat aattaaagaa gtcaatggcc atgaggttgg aaataatcca
1020
aaggaattac aagaattact gaaaaatatt agtgggaagt tcaccctaaa aatcttacca
1080
agttatagag ataccattac tectcaacag gtatttgtga agtggtcatt tgattataat
1140

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ccatacaatg acaacctaata accttgcaaa gaagcaggat tgaagttttc caaaggagag
 1200
 attcttcaga ttgtaaatag agaagatcca aattggtggc aggctagcca tgtaaaagag
 1260
 ggaggaagcg ctggtctcat tccaagccag ttcttggaag agaagagaaa ggcatttggt
 1320
 agaagagact gggacaattc aggacctttt tgtggaacta taagtagcaa aaaaaagaaa
 1380
 aagatgatgt atctcacaac cagaaatgca gaatttgatc gtcattgaaat ccagatatat
 1440
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 1560
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 1620
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 1680
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 1740
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 1800
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 1860
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 1920
 aaaacagtgg atgaaagtgc acggattcag agagcataca accactatct tgatttgatc
 1980
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 2100
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 2160
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 2280
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 2340
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 2366

<210> 5228

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5228

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 20 25 30
 Ile Phe Leu Lys Gly Ile Met Glu Asn Pro Ile Val Lys Ser Leu Ala

Lys	Ala	Arg	Glu	Arg	Leu	Glu	Asp	Ser	Lys	Leu	Glu	Ala	Val	Ser	Asp
	50					55					60				
Asn	Asn	Leu	Glu	Leu	Val	Asn	Glu	Ile	Leu	Glu	Asp	Ile	Thr	Pro	Leu
65					70					75					80
Ile	Asn	Val	Asp	Glu	Asn	Val	Ala	Glu	Leu	Val	Gly	Ile	Leu	Lys	Glu
				85					90					95	
Pro	His	Phe	Gln	Ser	Leu	Leu	Glu	Ala	His	Asp	Ile	Val	Ala	Ser	Lys
			100					105					110		
Cys	Tyr	Asp	Ser	Pro	Pro	Ser	Ser	Pro	Glu	Met	Asn	Asn	Ser	Ser	Ile
		115						120				125			
Asn	Asn	Gln	Leu	Leu	Pro	Val	Asp	Ala	Ile	Arg	Ile	Leu	Gly	Ile	His
	130					135					140				
Lys	Arg	Ala	Gly	Glu	Pro	Leu	Gly	Val	Thr	Phe	Arg	Val	Glu	Asn	Asn
145					150					155					160
Asp	Leu	Val	Ile	Ala	Arg	Ile	Leu	His	Gly	Gly	Met	Ile	Asp	Arg	Gln
				165					170					175	
Gly	Leu	Leu	His	Val	Gly	Asp	Ile	Ile	Lys	Glu	Val	Asn	Gly	His	Glu
			180					185					190		
Val	Gly	Asn	Asn	Pro	Lys	Glu	Leu	Gln	Glu	Leu	Leu	Lys	Asn	Ile	Ser
		195					200					205			
Gly	Ser	Val	Thr	Leu	Lys	Ile	Leu	Pro	Ser	Tyr	Arg	Asp	Thr	Ile	Thr
	210					215					220				
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Ser	His	Val	Lys	Glu	Gly	Gly	Ser	Ala	Gly	Leu	Ile	Pro	Ser	Gln	Phe
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Leu	Glu	Glu	Lys	Arg	Lys	Ala	Phe	Val	Arg	Arg	Asp	Trp	Asp	Asn	Ser
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305					310					315					320
Tyr	Leu	Thr	Thr	Arg	Asn	Ala	Glu	Phe	Asp	Arg	His	Glu	Ile	Gln	Ile
				325					330					335	
Tyr	Glu	Glu	Val	Ala	Lys	Met	Pro	Pro	Phe	Gln	Arg	Lys	Thr	Leu	Val
			340					345					350		
Leu	Ile	Gly	Ala	Gln	Gly	Val	Gly	Arg	Arg	Ser	Leu	Lys	Asn	Arg	Phe
		355					360					365			
Ile	Val	Leu	Asn	Pro	Thr	Arg	Phe	Gly	Thr	Thr	Val	Pro	Phe	Thr	Ser
	370					375					380				
Arg	Lys	Pro	Arg	Glu	Asp	Glu	Lys	Asp	Gly	Gln	Ala	Tyr	Lys	Phe	Val

465		470		475		480									
Val	Val	Asp	Ala	Gly	Ile	Thr	Thr	Lys	Leu	Leu	Thr	Asp	Ser	Asp	Leu
			485						490					495	
Lys	Lys	Thr	Val	Asp	Glu	Ser	Ala	Arg	Ile	Gln	Arg	Ala	Tyr	Asn	His
			500					505					510		
Tyr	Phe	Asp	Leu	Ile	Ile	Ile	Asn	Asp	Asn	Leu	Asp	Lys	Ala	Phe	Glu
		515					520					525			
Lys	Leu	Gln	Thr	Ala	Ile	Glu	Lys	Leu	Arg	Met	Glu	Pro	Gln	Trp	Val
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<210> 5229

<211> 1031

<212> DNA

<213> Homo sapiens

<400> 5229

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 35 40 45
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
 50 55 60
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
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 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
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<210> 5231
 <211> 845
 <212> DNA
 <213> Homo sapiens

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 720
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840

cttaa

845

<210> 5232

<211> 201

<212> PRT

<213> Homo sapiens

<400> 5232

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			20					25					30		
Ser	Pro	Val	Arg	Thr	Leu	Gln	Val	Glu	Thr	Leu	Val	Glu	Pro	Pro	Glu
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Pro	Cys	Ala	Glu	Pro	Ala	Ala	Phe	Gly	Asp	Thr	Leu	His	Ile	His	Tyr
	50					55					60				
Thr	Gly	Ser	Leu	Val	Asp	Gly	Arg	Ile	Ile	Asp	Thr	Ser	Leu	Thr	Arg
65					70					75				80	
Asp	Pro	Leu	Val	Ile	Glu	Leu	Gly	Gln	Lys	Gln	Val	Ile	Pro	Gly	Leu
			85						90					95	
Glu	Gln	Ser	Leu	Leu	Asp	Met	Cys	Val	Gly	Glu	Lys	Arg	Arg	Ala	Ile
			100					105					110		
Ile	Pro	Ser	His	Leu	Ala	Tyr	Gly	Lys	Arg	Gly	Phe	Pro	Pro	Ser	Val
		115					120					125			
Pro	Ala	Asp	Ala	Val	Val	Gln	Tyr	Asp	Val	Glu	Leu	Ile	Ala	Leu	Ile
	130					135					140				
Arg	Ala	Asn	Tyr	Trp	Leu	Lys	Leu	Val	Lys	Gly	Ile	Leu	Pro	Leu	Val
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			165						170					175	
Tyr	Arg	Lys	Ala	Asn	Arg	Pro	Lys	Val	Ser	Lys	Lys	Lys	Leu	Lys	Glu
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<210> 5233

<211> 2801

<212> DNA

<213> Homo sapiens

<400> 5233

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<210> 5234

<211> 57

<212> PRT

<213> Homo sapiens

<400> 5234

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Leu	Asp	Thr	Arg	Ser	Ser	Arg	Pro	Val	Trp	Gln	Arg	Gly	Glu	Thr	Thr
			20					25					30		
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys
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<210> 5235

<211> 3017

<212> DNA

<213> Homo sapiens

<400> 5235

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<210> 5236

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5236

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35	40	45	
Ala Glu Met Asp Leu Gly Thr Pro Thr Tyr Asp Glu Asn Pro Met Lys			
50	55	60	
Ala Ser Lys Lys Pro Lys Thr Ala Glu Ala Asp Thr Ser Ser Glu Leu			
65	70	75	80
Ala Lys Lys Ser Lys Glu Val Phe Arg Lys Glu Met Ser Gln Phe Ile			
85	90	95	
Val Gln Cys Leu Asn Pro Tyr Arg Lys Pro Asp Cys Lys Val Gly Arg			
100	105	110	
Ile Thr Thr Thr Glu Asp Phe Lys His Leu Ala Arg Lys Leu Thr His			
115	120	125	
Gly Val Met Asn Lys Glu Leu Lys Tyr Cys Lys Asn Pro Glu Asp Leu			
130	135	140	
Glu Cys Asn Glu Asn Val Lys His Lys Thr Lys Glu Tyr Ile Lys Lys			
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Leu Glu			

<210> 5237

<211> 1238

<212> DNA

<213> Homo sapiens

<400> 5237

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<210> 5238

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5238

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1				5					10					15	
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			20					25					30		
Leu	Leu	Gly	Ile	Tyr	Ile	Ile	His	Arg	Ala	Val	Arg	Asn	Pro	Asp	Asp
		35					40					45			
Leu	Glu	Ala	Arg	Ser	His	Met	His	Leu	Ala	Ser	Ala	Phe	Ala	Gly	Ile
	50					55					60				
Gly	Phe	Gly	Asn	Ala	Gly	Val	His	Leu	Cys	His	Gly	Met	Ser	Tyr	Pro
65					70					75					80
Ile	Ser	Gly	Leu	Val	Lys	Met	Tyr	Lys	Ala	Lys	Asp	Tyr	Asn	Val	Asp
			85						90					95	
His	Pro	Leu	Val	Pro	His	Gly	Leu	Ser	Val	Val	Leu	Thr	Ser	Pro	Ala
			100					105					110		
Val	Phe	Thr	Phe	Thr	Ala	Gln	Met	Phe	Pro	Glu	Arg	His	Leu	Glu	Met
		115					120					125			
Ala	Glu	Ile	Leu	Gly	Ala	Asp	Thr	Arg	Thr	Ala	Arg	Ile	Gln	Asp	Ala
		130				135					140				
Gly	Leu	Val	Leu	Ala	Asp	Thr	Leu	Arg	Lys	Phe	Leu	Phe	Asp	Leu	Asp
145					150					155				160	
Val	Asp	Asp	Gly	Leu	Ala	Ala	Val	Gly	Tyr	Ser	Lys	Ala	Asp	Ile	Pro
			165					170					175		
Ala	Leu	Val	Lys	Gly	Thr	Leu	Pro	Gln	Glu	Arg	Val	Thr	Lys	Leu	Ala
		180					185					190			
Pro	Arg	Pro	Gln	Ser	Glu	Glu	Asp	Leu	Ala	Ala	Leu	Phe	Glu	Ala	Ser
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		210													

<210> 5239

<211> 2061

<212> DNA

<213> Homo sapiens

<400> 5239

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120
taaaaacaaa agaggtgagt gagaatcgtc acctttctgc tttccttcct cacttggcca
180
ggctctagta ctccacctt gagctgccat gcccaatagg ggaagtccaa aattaaat
240
acaaccggtg tagaagaaaa taaatgggga gtgaaataga agaaaagatg agggagggga
300
gtgctaatat ttactactaga gttttataga caactgtccc attccatccc aattccaatc
360
ctgaccaga aagtgatggt ggcaggcca agagacagag attatgtgtc gggacacaga
420
cagcctccca tccccaaccg taatggattc aatttcaagt ccacagagtg gggaggaagg
480
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540
gaagtgcaga cagtatccaa gctccagggg ataggctgag gaccctgagg ctccagttccc
600
aaatcatgtt gtcatttga agttccaggc taaagttggt gccatcaggg ctctccagat
660
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720
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780
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840
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1140
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1260
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1320
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1380
cgggaggtat gtgtcaggga tgtgggggac aaaggagatg ccactttggg cccatccaga
1440

tcaaagagag agtccttgag cttcatcttc tcaagcaagg tagcactgtc gggggcctgc
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 1560
 ctcttgatg actttgcttt cttacaaaa gtctggatgg ttcgaagatc tgagggggcc
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 1740
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 1920
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 2040
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<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

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Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25				30			
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40				45				
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
	50					55				60					
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70				75					80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
				85					90					95	
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
			100					105					110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
		115					120					125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
	130					135					140				
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145					150					155				160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
				165					170					175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
			180					185					190		
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

145

<210> 5243
 <211> 344
 <212> DNA
 <213> Homo sapiens

<400> 5243
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 120
 aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaacccaga
 180
 agtcttgcta taagattcat ccttaccaat tacaacaagt tgtccatcca gagttggttt
 240
 agtttgccc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact
 300
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 344

<210> 5244
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 5244
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 Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys
 20 25 30
 Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg
 35 40 45
 Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile
 50 55 60
 Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe
 65 70 75 80
 Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val
 85 90 95
 Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys
 100 105 110
 Gln Arg

<210> 5245
 <211> 483
 <212> DNA
 <213> Homo sapiens

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 ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct ctccgtgggg
 120

ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caaccaagg agtgagggtt gagtcctgct ggccggccct gatgaaggat
 240
 gctcatggag tggatgatcgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag
 300
 atgtgggtatt cctgctttgt ccaacagccg tccttacagg acacacagtg tatgctaatt
 360
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg
 420
 aacaagctga agctgggtgca ctcaaacctg gaagatgacc ctgaggagat ccgatggaa
 480
 ttc
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

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Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
			35				40					45			
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
			50			55					60				
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
				85				90					95		
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
			100				105						110		
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
		115				120						125			
Met	Glu	Phe													
			130												

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 120
 ccttgcgaga gtggaaaaac tgttttggcc aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caaccaagg agtgaggatc ctagaatttg agaaccgcga tgttaccagc
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt
300
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct
360
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg
420
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat
480
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctggtgca ctcaaacctg
540
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac
600
tccatgtctg agagcagaga caggaggag atgtcaatta tgacctagcc agccttcacc
660
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat
720
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa
780
ggcactgtc acacagggcg ttcactcaga ccactgtgc tctgccctga gttcagttga
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900
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960
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1004

<210> 5248

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
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Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35					40					45			
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
	50					55					60				
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65					70					75				80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
				85				90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
		100						105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
	115					120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
	130					135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145					150					155				160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175
 Asp Arg Glu Glu Met Ser Ile Met Thr
 180 185
 <210> 5249
 <211> 653
 <212> DNA
 <213> Homo sapiens
 <400> 5249
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 120
 gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg
 180
 gagaaagtgg ccaatgtgat tgtggaccat tctctgcagg actgtgtgtt cagcaaggaa
 240
 gcaggacgca tgtgctacgc catcattcag gcagagagta aacaagcagg ccagagtgtc
 300
 ttccgacgtg gactcctcaa cgggctgcag caggagtacc aggctcggga gcagctgcga
 360
 gcacgctccc tgcagggctg ggtctgctat gtcaccttta tctgcaacat ctttgactac
 420
 ctgagggtga acaacatgcc catgatggcc ctgggtgaacc ctgtctatga ctgcctcttc
 480
 cggctggccc agccagacag tttgagcaag gaggaggagg tggactgttt ggtgctgcag
 540
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcatgga tgagctcttt
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 653

<210> 5250
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 5250
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 20 25 30
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu
 35 40 45
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala
 50 55 60
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu
 65 70 75 80
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala
 85 90 95
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu
 100 105 110
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<211> 372
<212> DNA
<213> Homo sapiens
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120
ccggaagacg gctttcctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccaggcc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctcctgct
240
gacagaaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
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gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgtctct cgggctcaac
360
tcgcagcctc ag
372
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<210> 5252
<211> 124
<212> PRT
<213> Homo sapiens
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<400> 5252																
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Asn	Gly	Tyr	Ala	His	Pro	Ser	Gly	Thr	Ala	Leu	His	Tyr	Asp	Asp	Val	
			20					25					30			
Pro	Cys	Ile	Asn	Gly	Ser	Gly	Glu	Pro	Glu	Asp	Gly	Phe	Pro	Ala	Phe	
		35					40					45				
Cys	Ser	Arg	Ser	Leu	Gly	Glu	Gly	Ala	Phe	Glu	Asn	Pro	Gly	Leu		
	50				55					60						
Tyr	Asp	Asn	Trp	Pro	Pro	His	Ile	Phe	Ala	Arg	Tyr	Ser	Pro	Ala		
65				70					75					80		
Asp	Arg	Lys	Ala	Ser	Arg	Leu	Ser	Ala	Asp	Lys	Leu	Ser	Ser	Asn	His	
				85					90					95		
Tyr	Lys	Tyr	Pro	Ala	Ser	Ala	Gln	Ser	Val	Thr	Asn	Thr	Ser	Ser	Val	

100 105 110
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln
 115 120

<210> 5253
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 5253
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 120
 tcattctaat gccatccttg tggagagcca cagtgtagtg caaggttcca tccaattcac
 180
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc
 240
 ctcactctca gtggctgtga actccatcat gaggattctg actggaagca ctaggagcag
 300
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa
 360
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga
 420
 ggtgaagcag cagctaacc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc
 480
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 caagaggggc agccccgc tagaggagat gcgagctctg cgctctgcca gggccccgag
 600
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 660
 aaggagcac cgcgaggctc acggcagggc cctggcgccg ggcagggcga gcctcggaag
 720
 ccgcctggag gacgtgctgt ggctgcagga ggtctccaac ctgtcagagt ggctgagtcc
 780
 cagccctggg ccctgagccg ggtccccttc cgcaagcgcc caccgatccg gaggtgcgg
 840
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 898

<210> 5254
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 5254
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 Glu Ala Gln Glu Gly Gln Pro Pro His Arg Gly Asp Ala Ser Ser Ala
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 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly
 35 40 45
 Ser His Arg Gly Pro Pro His Ser

50

55

<210> 5255
<211> 1410
<212> DNA
<213> Homo sapiens

<400> 5255
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120
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca
180
tactggatc ccagatcccc tactccacc cactggattc ctgcattggt ttttggtttt
240
ttgttttttt ttaacctega cactgggtct cagatccttc tgetgactgc cagatccctg
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catttcaagc actacgcctt ccacccccag gcactggatc ccagattccc aagccttcac
360
ccaccagatt ctggctccta aaacaagtgc gggggcccca gtggcacagc aagtggatcc
420
tggaactgc agctgctgga ttccagattc tgggtcccca atccctctgc ccagtccctc
480
aatgttgaaa cctcatctct tgaaggcaga tcctgatatt ccaaggcact gaatcccaag
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600
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660
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720
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1020
gttgaaagcc aggagaaaat cggcaaagac cacccttccc taaaccaag cacccaatga
1080
tgcaaaaaac aaaaacaaaa aaaccacca aatccccaaa ttcattccag atctattttt
1140
ctaccagaga gaggagcaaa gtctctctcc cctgcgcct tacattctgc acttcatagt
1200
tggattctga gcttaggatc atctggagac cccatggagg gacttggaaa ggggaactgg
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1320
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1410

<210> 5256
<211> 95
<212> PRT
<213> Homo sapiens

<400> 5256
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Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro
35 40 45
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg
50 55 60
Arg Ile Val Pro Arg Ala Val Phe Leu Gln Gly Val Arg Gly Ile Thr
65 70 75 80
His Ser Trp Arg Leu Ala Arg Arg Gln Ser Glu Ala Arg Asp Thr
85 90 95

<210> 5257
<211> 1366
<212> DNA
<213> Homo sapiens

<400> 5257
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180
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240
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300
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360
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420
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720
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780

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<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

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Gly	Gly	Gly	Leu	Leu	Pro	Ala	Ser	Gly	Cys	His	Gly	Pro	Ala	Ala	Ser
			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35					40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
		50				55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65				70					75						80
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
			85					90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
			100					105					110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
			115				120						125		
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
			130			135					140				
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145					150				155						160
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
			165					170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
			180					185					190		
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
		195				200						205			
Leu	Gly	Leu	Arg	Thr	Ile	Asn	Val	Val	Arg	Asp	Arg	Pro	Asp	Ile	Gln

210		215		220											
Lys	Leu	Ser	Asp	Arg	Leu	Lys	Ser	Leu	Gly	Ala	Glu	His	Val	Ile	Thr
225					230					235					240
Glu	Glu	Glu	Leu	Arg	Arg	Pro	Glu	Met	Lys	Asn	Phe	Phe	Lys	Asp	Met
				245					250					255	
Pro	Gln	Pro	Arg	Leu	Ala	Leu	Asn	Cys	Val	Gly	Gly	Lys	Ser	Ser	Thr
			260					265					270		
Glu	Leu	Leu	Arg	Gln	Leu	Ala	Arg	Gly	Gly	Thr	Met	Val	Thr	Tyr	Gly
		275					280					285			
Gly	Met	Ala	Lys	Gln	Pro	Val	Val	Ala	Ser	Val	Ser	Leu	Leu	Ile	Phe
290					295					300					
Lys	Asp	Leu	Lys	Leu	Arg	Gly	Phe	Trp	Leu	Ser	Gln	Trp	Lys	Lys	Asp
305				310					315					320	
His	Ser	Pro	Asp	Gln	Phe	Lys	Glu	Leu	Ile	Leu	Thr	Leu	Cys	Asp	Leu
			325					330					335		
Ile	Arg	Arg	Gly	Gln	Leu	Thr	Ala	Pro	Ala	Cys	Ser	Gln	Val	Pro	Leu
			340				345					350			
Gln	Asp	Tyr	Gln	Ser	Ala	Leu	Glu	Ala	Ser	Met	Lys	Pro	Phe	Ile	Ser
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Ser	Lys	Gln	Ile	Leu	Thr	Met									
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<210> 5259

<211> 306

<212> DNA

<213> Homo sapiens

<400> 5259

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120
actttcccaa acctgggect tctgctagag aagttgcaga aatcagccac tttgccaagc
180
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
240
aacctctctg agattttcac agacaaccag attttattaa agatgatctc acacatgaca
300
agttta
306

<210> 5260

<211> 83

<212> PRT

<213> Homo sapiens

<400> 5260

Met	Thr	Glu	Glu	Lys	Thr	Leu	Thr	Ala	Glu	Gly	Leu	Val	Lys	Leu	Leu
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Gln	Ala	Val	Lys	Thr	Thr	Phe	Pro	Asn	Leu	Gly	Leu	Leu	Leu	Glu	Lys
		20				25					30				
Leu	Gln	Lys	Ser	Ala	Thr	Leu	Pro	Ser	Thr	Thr	Val	Gln	Pro	Ser	Pro
	35					40				45					
Asp	Asp	Tyr	Gly	Thr	Glu	Leu	Leu	Arg	Arg	Tyr	His	Glu	Asn	Leu	Ser

50	55	60
Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met		
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Thr Ser Leu		80

<210> 5261
 <211> 2394
 <212> DNA
 <213> Homo sapiens

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 300
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 360
 aagtccagct tgaagacgct cttcatcctc ttccggaacg agacgggtgga cgtggaggac
 420
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 720
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 780
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 1200
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 1260

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 1980
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<210> 5262

<211> 275

<212> PRT

<213> Homo sapiens

<400> 5262

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			20				25				30				
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
		35				40				45					
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
50						55					60				

Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly
 70 75 80
 Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu
 85 90 95
 Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu
 100 105 110
 Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
 115 120 125
 Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp
 130 135 140
 Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp
 145 150 155 160
 Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
 165 170 175
 Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
 180 185 190
 Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
 195 200 205
 Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
 210 215 220
 Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
 225 230 235 240
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 245 250 255
 Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val
 260 265 270
 Ala Gly His
 275

<210> 5263
 <211> 319
 <212> DNA
 <213> Homo sapiens

<400> 5263
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 180
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 300
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 319

<210> 5264
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 5264

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		20						25				30			
Trp	His	Phe	Asn	Ile	Asn	Gln	Lys	Arg	Phe	Ser	Lys	Ala	Gln	Pro	Thr
		35					40					45			
Cys	Phe	Leu	Leu	Ile	Leu	Pro	Cys	Gln	Lys	Ile	Met	Cys	Ile	Tyr	
	50				55					60					
Phe	Gln	Leu	Leu	Leu	Met	Glu	Thr	Thr	Ala	Met	Leu	Asp	Leu	Leu	Val
65					70					75				80	
Ile	Arg	Gln	Leu	Lys	Ser	Ala	Leu	Ser	Gln	Thr	Leu	Leu	Cys	His	Leu
			85						90				95		
Leu	Ile	Leu	Val	Leu	Ile	Cys	Ser	Arg							
		100						105							

<210> 5265

<211> 3203

<212> DNA

<213> Homo sapiens

<400> 5265

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2280
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 3203

<210> 5266
 <211> 853
 <212> PRT
 <213> Homo sapiens

<400> 5266
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 35 40 45
 Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro
 50 55 60
 Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu
 65 70 75 80
 Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr Thr Thr
 85 90 95
 Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly
 100 105 110
 Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr Leu Gly
 115 120 125
 Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr Gly Ile
 130 135 140
 Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Glu Leu Leu
 145 150 155 160
 Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu Leu Ala
 165 170 175
 Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn
 180 185 190
 Arg Leu Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly Gly Gly

Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe	Pro	Pro	
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Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu	Arg	Gly	
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<212> DNA
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540

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<212> PRT

<213> Homo sapiens

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			195				200					205			
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
			210			215					220				
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Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
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<212> DNA

<213> Homo sapiens

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<213> Homo sapiens

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Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100           105           110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
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Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130           135           140
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Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165           170           175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180           185           190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195           200           205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210           215           220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
          225           230           235           240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245           250           255
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Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
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Phe	Asp	Ile	Glu	Glu	Phe	Ala	Lys	Asp	Val	Gly	Ala	Gln	Ile	Leu	Leu				
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His	Ser	His	Lys	Lys	Asp	Ile	Leu	Met	His	Arg	Trp	Arg	Tyr	Pro	Ser				
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Leu	Ser	Leu	His	Gly	Ile	Glu	Gly	Ala	Phe	Ser	Gly	Ser	Gly	Ala	Lys				
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3120
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3180
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3240
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3300
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3360
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3480

ttttatgctg ataacttggg atttcttgat agtccttcac ccctgaaacc ccgtatttac
 3540
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 3600
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 3660
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 3720
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 3780
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 4140
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 4200
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 4320
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 4380
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 4440
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 4560
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<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

Met	Ser	Gly	Ser	Phe	Glu	Leu	Ser	Val	Gln	Asp	Leu	Asn	Asp	Leu	Leu
1				5					10					15	
Ser	Asp	Gly	Ser	Gly	Cys	Tyr	Ser	Leu	Pro	Ser	Gln	Pro	Cys	Asn	Glu
			20					25					30		
Val	Thr	Pro	Arg	Ile	Tyr	Val	Gly	Asn	Ala	Ser	Val	Ala	Gln	Asp	Ile
		35					40					45			
Pro	Lys	Leu	Gln	Lys	Leu	Gly	Ile	Thr	His	Val	Leu	Asn	Ala	Ala	Glu
	50					55					60				
Gly	Arg	Ser	Phe	Met	His	Val	Asn	Thr	Asn	Ala	Asn	Phe	Tyr	Lys	Asp

65		70		75		80									
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
		85						90						95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
		100						105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115					120					125			
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
		130					135				140				
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
145					150					155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
			165					170						175	
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
		180						185							

<210> 5275
 <211> 810
 <212> DNA
 <213> Homo sapiens

<400> 5275
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 120
 atgtcctgca tctaacgcgg tgtgaccccc gaagccgagc gagctccgga ggaatttcag
 180
 tatctgctac ggtaacttca tcagcccggc aagatggcga tgcaagcggc caagagggcg
 240
 aacattcgac ttccacctga agtaaactcg atattgtata taagaaattt gccatacaaa
 300
 atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatcaga
 360
 gtggggaaca cacctgaaac tagaggaaca gcttatgttg tctatgagga catctttgat
 420
 gccaagaatg catgtgatca cctatcgga ttcaatgttt gtaacagata ccttgtgggt
 480
 ttgtactata atgccaacag ggcatttcag aagatggaca caaagaagaa ggaggaacag
 540
 ttgaagcttc tcaaggagaa atatggcatc aacacagatc caccaaaata aatgttttct
 600
 acattttcat ttggactaaa tcccacgaat gacaactacc accttttttt cctttttaat
 660
 taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
 720
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 780
 tcgacgcggc cggcaattta gtagtagtag
 810

<210> 5276
 <211> 125
 <212> PRT

<213> Homo sapiens

<400> 5276

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Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
      20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
      35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
      50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
      65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
      85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Lys Glu Glu Gln Leu Lys Leu
      100          105          110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
      115          120          125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggaccg tctggcgctt cttcctgcgg gacatcacat tgaggtacaa ggagaccggg
240
tggcagaagt ggcagaacaa ggatgaccag ggcagcaccg tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctgggggtgg ccgagggcga gggagcacca
360
actccaaact gacctgggccc gtggctgcct cgtgagcctc ccagagccca ggcctccgtg
420
gcctcctcct gtgtgagtcc caccaggagc cacgtgcccg gccttgccct caaggttttt
480
tgcttttctc ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
540
gcctcatctc catgtgtaca cgtgtgtacg tgtgtatgcg tgtgtgtacg tgtgtatgcg
600
tgtgtgtacg tg
612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5278

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Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
1           5           10           15
Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
115          120

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<210> 5279

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 5279

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cctgactttc agctgcaggc catgattcag gcagcaggaa agcttggtgtt gattgataaa
120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
tgccctcgaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
240
gggcgagtac ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcctgactca
300
gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
360
gctgatacct gcatcatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
540
gttcttcaga catcaaccga aaggcgcgca ccaatgggta cagcactctc aaaaatggag
600
gtggaggacc tactccgaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
tccaagttct gtgaagaaga catagaccag attctgcaga ggcaacgca caccatcacc
720
atccagtctg aggggaaagg gtccactttt gccaaaggcta gctttgtggc ttcaggaaac
780
agaacagata tttccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgcgtgaga
900

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aagcagacca aacactacaa ctcgtttgag gaagacgagc tcattggagtt ttcagagtta
960
gacagcgact cagacgaaag gccacgaga tccaggcgcc tcaatgacaa agccaggcgc
1020
tacctccgag cggagtgcct ccgggtagag aagaacctgc tcattcttgg ctggggccgg
1080
tggaaggaca tcctgactca tggccgattc aagtggcatc tgaacgagaa ggacatggag
1140
atgatttgcc gtgccctcct ggtgtactgt gtcaagcatt ataaggggga cgagaagatc
1200
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1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

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Ser	Pro	Asp	Ala	Pro	Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala
			20					25					30		
Gly	Lys	Leu	Val	Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Ile	Ala	Gly
		35				40						45			
Gly	His	Lys	Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile
	50					55					60				
Leu	Glu	Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Thr	Tyr	Glu	Arg	Ile	Asp
65					70				75					80	
Gly	Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
				85					90					95	
Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala	Gly
			100					105					110		
Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile	Phe	Asp
		115					120					125			
Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala	Arg	Cys	His
	130					135					140				
Arg	Ile	Gly	Gln	Ser	Lys	Ala	Val	Lys	Val	Tyr	Arg	Leu	Ile	Thr	Arg
145					150					155				160	
Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala	Ser	Leu	Lys	Leu	Gly
				165					170					175	
Leu	Asp	Lys	Ala	Val	Leu	Gln	Thr	Ser	Thr	Glu	Arg	Ala	Ala	Pro	Met
			180					185					190		
Gly	Thr	Ala	Leu	Ser	Lys	Met	Glu	Val	Glu	Asp	Leu	Leu	Arg	Lys	Gly
	195						200					205			
Ala	Tyr	Gly	Ala	Leu	Met	Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys
	210					215					220				
Glu	Glu	Asp	Ile	Asp	Gln	Ile	Leu	Gln	Arg	Arg	Thr	His	Thr	Ile	Thr
225					230					235				240	
Ile	Gln	Ser	Glu	Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val
				245					250					255	
Ala	Ser	Gly	Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp
			260					265					270		
Gln	Lys	Trp	Ala	Lys	Ile	Ala	Glu	Leu	Asp	Thr	Glu	Ala	Lys	Asn	Glu

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      275              280              285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
  290              295              300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
  305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
  385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
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<210> 5281

<211> 336

<212> DNA

<213> Homo sapiens

<400> 5281

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120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcatg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtctcacc aaacctggag cagatcacga ttgggaaaac ctagagaaaag
300
acttgagatt gctcattaat ggggattatg aagaag
336

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<210> 5282

<211> 91

<212> PRT

<213> Homo sapiens

<400> 5282

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Met Gln Thr Ala Gln Asn Lys Tyr Gln Glu Leu Lys Asn Ile Cys Ser
  1              5              10              15
Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20              25              30
Gly Asp Thr Ala Ile Ser Ser Glu Glu Lys Thr Gln Arg Met Ser Leu
      35              40              45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50              55              60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
  65              70              75              80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283
<211> 1989
<212> DNA
<213> Homo sapiens

<400> 5283
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120
atggatggca tcattgaaca gaagagcatg ctggtgcaca gtaaaatcag tgatgctggc
180
aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg
240
tctgtttacc cagcgcccca gtaccagagc caccgggtgg gggccagcac agtgccggcc
300
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360
cagtcagtgg agtcccgcta ccggcccaac atcatcctct attcagaggg cgtgctgcgc
420
tcctgggggg acggtgtggc cgccgactgc tgcgagacca ccttcacga ggaccggtcg
480
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660
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720
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840
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960
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1080
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1140
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1200
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1260
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1320
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1380

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 1560
 cacagctacc cgcagcaat acgcactctt gggacctcgc tgatctagga tggggaggga
 1620
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 1680
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 1860
 cttcatgctg cttaagttac cagatgaatg ctgagaaata agtaatcaca gacattttaa
 1920
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 1980
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 1989

<210> 5284

<211> 258

<212> PRT

<213> Homo sapiens

<400> 5284

Met	Asp	Gly	Ile	Ile	Glu	Gln	Lys	Ser	Met	Leu	Val	His	Ser	Lys	Ile
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Ser	Asp	Ala	Gly	Lys	Arg	Asn	Gly	Leu	Ile	Asn	Thr	Arg	Asn	Leu	Met
		20						25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50					55				60					
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70				75					80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85					90					95		
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
		100						105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu
145					150				155					160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165					170					175		
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
		180					185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210					215					220				
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225					230					235					240
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
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His	Leu														

<210> 5285

<211> 2155

<212> DNA

<213> Homo sapiens

<400> 5285

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120
ccctatgtgc cgttacggca gcgccggcag ctactgtctc agaagctgct gcagcgaaga
180
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240
gacgacatcc cgctaggccc tcagtccaac gtcagcctcc tggatcagca ccagcacctt
300
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1140

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 1560
 aactatgtac accggattgg ccgcaccggg cgctcgggaa acacaggcat cgccactacc
 1620
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 1980
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<210> 5286

<211> 628

<212> PRT

<213> Homo sapiens

<400> 5286

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			20					25					30		
Asp	Glu	Asp	Asp	Glu	Asp	Tyr	Val	Pro	Tyr	Val	Pro	Leu	Arg	Gln	Arg
		35				40					45				
Arg	Gln	Leu	Leu	Leu	Gln	Lys	Leu	Leu	Gln	Arg	Arg	Arg	Lys	Gly	Ala
	50					55				60					
Ala	Glu	Glu	Glu	Gln	Gln	Asp	Ser	Gly	Ser	Glu	Pro	Arg	Gly	Asp	Glu
65					70					75				80	
Asp	Asp	Ile	Pro	Leu	Gly	Pro	Gln	Ser	Asn	Val	Ser	Leu	Leu	Asp	Gln
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His	Gln	His	Leu	Lys	Glu	Lys	Ala	Glu	Ala	Arg	Lys	Glu	Ser	Ala	Lys

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Glu	Lys	Gln	Leu	Lys	Glu	Glu	Glu	Lys	Ile	Leu	Glu	Ser	Val	Ala	Glu				
		115					120					125							
Gly	Arg	Ala	Leu	Met	Ser	Val	Lys	Glu	Met	Ala	Lys	Gly	Ile	Thr	Tyr				
		130					135					140							
Asp	Asp	Pro	Ile	Lys	Thr	Ser	Trp	Thr	Pro	Pro	Arg	Tyr	Val	Leu	Ser				
145					150						155				160				
Met	Ser	Glu	Glu	Arg	His	Glu	Arg	Val	Arg	Lys	Lys	Tyr	His	Ile	Leu				
				165					170						175				
Val	Glu	Gly	Asp	Gly	Ile	Pro	Pro	Pro	Ile	Lys	Ser	Phe	Lys	Glu	Met				
			180					185						190					
Lys	Phe	Pro	Ala	Ala	Ile	Leu	Arg	Gly	Leu	Lys	Lys	Lys	Gly	Ile	His				
		195					200					205							
His	Pro	Thr	Pro	Ile	Gln	Ile	Gln	Gly	Ile	Pro	Thr	Ile	Leu	Ser	Gly				
		210					215					220							
Arg	Asp	Met	Ile	Gly	Ile	Ala	Phe	Thr	Gly	Ser	Gly	Lys	Thr	Leu	Val				
225					230					235					240				
Phe	Thr	Leu	Pro	Val	Ile	Met	Phe	Cys	Leu	Glu	Gln	Glu	Lys	Arg	Leu				
				245					250						255				
Pro	Phe	Ser	Lys	Arg	Glu	Gly	Pro	Tyr	Gly	Leu	Ile	Ile	Cys	Pro	Ser				
			260					265					270						
Arg	Glu	Leu	Ala	Arg	Gln	Thr	His	Gly	Ile	Leu	Glu	Tyr	Tyr	Cys	Arg				
		275					280					285							
Leu	Leu	Gln	Glu	Asp	Ser	Ser	Pro	Leu	Leu	Arg	Cys	Ala	Leu	Cys	Ile				
		290				295					300								
Gly	Gly	Met	Ser	Val	Lys	Glu	Gln	Met	Glu	Thr	Ile	Arg	His	Gly	Val				
305					310					315					320				
His	Met	Met	Val	Ala	Thr	Pro	Gly	Arg	Leu	Met	Asp	Leu	Leu	Gln	Lys				
				325					330					335					
Lys	Met	Val	Ser	Leu	Asp	Ile	Cys	Arg	Tyr	Leu	Ala	Leu	Asp	Glu	Ala				
			340					345					350						
Asp	Arg	Met	Ile	Asp	Met	Gly	Phe	Glu	Gly	Asp	Ile	Arg	Thr	Ile	Phe				
		355					360					365							
Ser	Tyr	Phe	Lys	Gly	Gln	Arg	Gln	Thr	Leu	Leu	Phe	Ser	Ala	Thr	Met				
		370				375					380								
Pro	Lys	Lys	Ile	Gln	Asn	Phe	Ala	Lys	Ser	Ala	Leu	Val	Lys	Pro	Val				
385					390					395					400				
Thr	Ile	Asn	Val	Gly	Arg	Ala	Gly	Ala	Ala	Ser	Leu	Asp	Val	Ile	Gln				
				405					410					415					
Glu	Val	Glu	Tyr	Val	Lys	Glu	Glu	Ala	Lys	Met	Val	Tyr	Leu	Leu	Glu				
			420					425				430							
Cys	Leu	Gln	Lys	Thr	Pro	Pro	Pro	Val	Leu	Ile	Phe	Ala	Glu	Lys	Lys				
		435					440					445							
Ala	Asp	Val																	

530 535 540
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
 545 550 555 560
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
 565 570 575
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
 580 585 590
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
 595 600 605
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
 610 615 620
 Ser Met Asp Phe
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<210> 5287
 <211> 581
 <212> DNA
 <213> Homo sapiens

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 180
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 240
 tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag
 300
 aaagacttcc ctgcccacgc gattgtgctg gctgcctgta gtgattactt ctgtgccatg
 360
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 420
 tctaccatgg aaattttatt ggactttgtg tacacagaaa cggtacatgt gacagtggag
 480
 aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaaggtgt gaaacaagcc
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 581

<210> 5288
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 5288
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 Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
 20 25 30
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
 35 40 45
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

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      50      55      60
Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
65      70      75      80
Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
      85      90      95
Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
      100      105      110
Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
      115      120      125
Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
      130      135      140
Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
145      150      155      160
Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
      165      170      175
Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
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Arg

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<210> 5289
 <211> 361
 <212> DNA
 <213> Homo sapiens

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<400> 5289
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120
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180
tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca
240
ggatgttcag ctaaaagtaa aaacctactt gcttggaaact gatttgtcta tattcaaata
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360
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361

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<210> 5290
 <211> 95
 <212> PRT
 <213> Homo sapiens

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<400> 5290
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Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu
      20      25      30
Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His
      35      40      45
Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

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50	55	60
Leu Leu Gly Thr Asp	Leu Ser Ile Phe Lys Tyr Asp Asp Phe Ile Phe	
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85	90	95

<210> 5291
 <211> 767
 <212> DNA
 <213> Homo sapiens

<400> 5291
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 120
 tgctgagggg cagggaccat ctctctctcc tcttctctct cctccctggc tttggtctcc
 180
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 240
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 300
 gcagggctgg atggggagag caggggctgg agtggaggca gggggcagcc ccaccaggc
 360
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 420
 gagccacatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg
 480
 caccctgctc ctcaagtggc aggatggcac caggtctctc ggctgaaacg gacagtccca
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 600
 agagggccac ctctgtggg gcacacagac acaggcagag acatgcgagg gcacgcacgc
 660
 atgcacagag aaacctctcc cacagagaca ggccacatgg aggagagacc agagagaaaa
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 767

<210> 5292
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 5292
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 Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu
 20 25 30
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
 35 40 45
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
 50 55 60
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65					70					75				80
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg
				85					90				95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His
			100					105				110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp
		115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser	
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<210> 5293

<211> 1428

<212> DNA

<213> Homo sapiens

<400> 5293

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 gcttcactgt tgctcttggc aacatccact tccgggagcg agtgccgttt ccccgctca
 180
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 240
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 660
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 780
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 1140

aacactgctt tgaaaagaca ttttcatgga gtgaaagaca taaagtggag accaagatga
 1200
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 1260
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 1320
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 1380
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 1428

<210> 5294
 <211> 290
 <212> PRT
 <213> Homo sapiens

<400> 5294
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 20 25 30
 Arg Val Tyr Asn Gly Arg Leu Lys Val Gln Arg Leu Cys Ser Glu Met
 35 40 45
 Glu Glu Leu Ala Glu His Gly Ile Phe Leu Pro Pro Asn Met Gln Gly
 50 55 60
 Leu Thr Asp Asp Gln Ile Glu Glu Leu Lys Leu Lys Asp Glu Trp Gly
 65 70 75 80
 Glu Lys Cys Val Pro Ser Gly Gly Ala Val Phe Lys Lys Asp Asp Ile
 85 90 95
 Gly Arg Arg Asn Gly Gln Ala Pro Asn Glu Lys Met Lys Gln Val Leu
 100 105 110
 Lys Lys Thr Ile Glu Glu Ala Lys Ala Ile Ile Ser Lys Lys Gln Val
 115 120 125
 Glu Ala Gly Val Cys Val Thr Met Glu Met Val Lys Asp Ala Leu Asp
 130 135 140
 Gln Leu Arg Gly Ala Val Met Ile Val Tyr Pro Met Gly Leu Pro Pro
 145 150 155 160
 Tyr Asp Pro Ile Arg Met Glu Phe Glu Asn Lys Glu Asp Leu Ser Gly
 165 170 175
 Thr Gln Ala Gly Leu Asn Val Ile Lys Glu Ala Glu Ala Gln Leu Trp
 180 185 190
 Trp Ala Ala Lys Glu Leu Arg Arg Thr Lys Lys Leu Ser Asp Tyr Val
 195 200 205
 Gly Lys Asn Glu Lys Thr Lys Ile Ile Ala Lys Ile Gln Gln Arg Gly
 210 215 220
 Gln Gly Ala Pro Ala Arg Glu Pro Ile Ile Ser Ser Glu Glu Gln Lys
 225 230 235 240
 Gln Leu Met Leu Tyr Tyr His Arg Arg Gln Glu Glu Leu Lys Arg Leu
 245 250 255
 Glu Glu Asn Asp Asp Asp Ala Tyr Leu Asn Ser Pro Trp Ala Asp Asn
 260 265 270
 Thr Ala Leu Lys Arg His Phe His Gly Val Lys Asp Ile Lys Trp Arg
 275 280 285
 Pro Arg

290

<210> 5295

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 5295

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120
gacagtaacg agcagtgtcg gccgggcccc actttcagag ggggcggaag ggcattctga
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300
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360
gctgtggtga gccacaaagc accaagattc tgttcttcat tcagcaacca cccatgagcc
420
tcctgcttta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa
480
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540
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600
gccccacaca cccactggtg gctaccaagg cccgtcaata gatcttgtgt ccaccgagcc
660
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900
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960
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1020
cagatgatct tgatcttttt caatcatttc ctttgtctca gggtgaggca tcttgataaa
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1320
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1440

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1451

<210> 5296

<211> 133

<212> PRT

<213> Homo sapiens

<400> 5296

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			20					25					30		
Leu	Asp	Thr	Lys	Arg	Asn	Gln	Asn	Arg	Glu	Gly	Leu	Arg	Ala	Leu	Gln
			35				40					45			
Lys	Asp	Leu	Ser	Leu	Ser	Glu	Asp	Val	Met	Val	Cys	Phe	Gly	Asn	Met
			50			55					60				
Phe	Ile	Lys	Met	Pro	His	Pro	Glu	Thr	Lys	Glu	Met	Ile	Glu	Lys	Asp
65					70				75				80		
Gln	Asp	His	Leu	Asp	Lys	Glu	Ile	Glu	Lys	Leu	Arg	Lys	Gln	Leu	Lys
			85					90					95		
Val	Lys	Val	Asn	Arg	Leu	Phe	Glu	Ala	Gln	Gly	Lys	Pro	Glu	Leu	Lys
			100					105					110		
Gly	Phe	Asn	Leu	Asn	Pro	Leu	Asn	Gln	Asp	Glu	Leu	Lys	Ala	Leu	Lys
			115				120						125		
Val	Ile	Leu	Lys	Gly											
			130												

<210> 5297

<211> 5318

<212> DNA

<213> Homo sapiens

<400> 5297

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120
gagtgccttg gtgaagcaca tgagccttgt gactgccaaa catggaagaa ttggctgcaa
180
aaaataaccg aaatgaaacc agaagaactt gtgggagtta gtgaagccta cgaggatgcc
240
gccaatgtgc tctggttatt aactaactcc aagccttggtg ccaactgtaa gtctccaata
300
cagaagaatg aaggctgcaa tcacatgcag tgtgctaagt gcaagtatga cttttgctgg
360
atttgccttg aagagtggaa aaaacatagt tcgtccactg gaggttatta cggatgtact
420
cgctatgaag tcattcaaca cgtggaggag caatccaagg aaatgactgt ggaggctgag
480
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 gttaattccc atacaagtca aggtaacaga acaaaaggga atcctgatgc ctttttacca
 6240
 ttgctggttg agctcaggca ctgtcatgga cacccttaat tttaaaaggt tttaatcatt
 6300
 cttctataaa atacatttaa aatggaaaaa tacttaatat cactaaatat cagaacaatg
 6360
 taacatttac aaatgacata ttgaaagcaa aggctgtttt atttagccaa gatgattacc
 6420
 attaggagtt actttatgta ttgttgaaag caaattttta acatgatgtt ttagaagtgt
 6480
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 6540
 ggaaatttat tatttcttgc aattcccgtg atagctctgt tctttatgca ttgtctcaac
 6600
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 6660
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 6712

<210> 5302

<211> 1339

<212> PRT

<213> Homo sapiens

<400> 5302

Ala	Pro	Pro	Ala	Gly	Arg	Arg	Arg	Met	Gln	Ala	Ala	Pro	Arg	Ala	Gly
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Cys	Gly	Ala	Ala	Leu	Leu	Leu	Trp	Ile	Val	Ser	Ser	Cys	Leu	Cys	Arg
			20					25					30		
Ala	Trp	Thr	Ala	Pro	Ser	Thr	Ser	Gln	Lys	Cys	Asp	Glu	Pro	Leu	Val
		35					40					45			
Ser	Gly	Leu	Pro	His	Val	Ala	Phe	Ser	Ser	Ser	Ser	Ser	Ile	Ser	Gly

50 55 60
 Ser Tyr Ser Pro Gly Tyr Ala Lys Ile Asn Lys Arg Gly Gly Ala Gly
 65 70 75 80
 Gly Trp Ser Pro Ser Asp Ser Asp His Tyr Gln Trp Leu Gln Val Asp
 85 90 95
 Phe Gly Asn Arg Lys Gln Ile Ser Ala Ile Ala Thr Gln Gly Arg Tyr
 100 105 110
 Ser Ser Ser Asp Trp Val Thr Gln Tyr Arg Met Leu Tyr Ser Asp Thr
 115 120 125
 Gly Arg Asn Trp Lys Pro Tyr His Gln Asp Gly Asn Ile Trp Ala Phe
 130 135 140
 Pro Gly Asn Ile Asn Ser Asp Gly Val Val Arg His Glu Leu Gln His
 145 150 155 160
 Pro Ile Ile Ala Arg Tyr Val Arg Ile Val Pro Leu Asp Trp Asn Gly
 165 170 175
 Glu Gly Arg Ile Gly Leu Arg Ile Glu Val Tyr Gly Cys Ser Tyr Trp
 180 185 190
 Ala Asp Val Ile Asn Phe Asp Gly His Val Val Leu Pro Tyr Arg Phe
 195 200 205
 Arg Asn Lys Lys Met Lys Thr Leu Lys Asp Val Ile Ala Leu Asn Phe
 210 215 220
 Lys Thr Ser Glu Ser Glu Gly Val Ile Leu His Gly Glu Gly Gln Gln
 225 230 235 240
 Gly Asp Tyr Ile Thr Leu Glu Leu Lys Lys Ala Lys Leu Val Leu Ser
 245 250 255
 Leu Asn Leu Gly Ser Asn Gln Leu Gly Pro Ile Tyr Gly His Thr Ser
 260 265 270
 Val Met Thr Gly Ser Leu Leu Asp Asp His His Trp His Ser Val Val
 275 280 285
 Ile Glu Arg Gln Gly Arg Ser Ile Asn Leu Thr Leu Asp Arg Ser Met
 290 295 300
 Gln His Phe Arg Thr Asn Gly Glu Phe Asp Tyr Leu Asp Leu Asp Tyr
 305 310 315 320
 Glu Ile Thr Phe Gly Gly Ile Pro Phe Ser Gly Lys Pro Ser Ser Ser
 325 330 335
 Ser Arg Lys Asn Phe Lys Gly Cys Met Glu Ser Ile Asn Tyr Asn Gly
 340 345 350
 Val Asn Ile Thr Asp Leu Ala Arg Lys Lys Leu Glu Pro Ser Asn
 355 360 365
 Val Gly Asn Leu Ser Phe Ser Cys Val Glu Pro Tyr Thr Val Pro Val
 370 375 380
 Phe Phe Asn Ala Thr Ser Tyr Leu Glu Val Pro Gly Arg Leu Asn Gln
 385 390 395 400
 Asp Leu Phe Ser Val Ser Phe Gln Phe Arg Thr Trp Asn Pro Asn Gly
 405 410 415
 Leu Leu Val Phe Ser His Phe Ala Asp Asn Leu Gly Asn Val Glu Ile
 420 425 430
 Asp Leu Thr Glu Ser Lys Val Gly Val His Ile Asn Ile Thr Gln Thr
 435 440 445
 Lys Met Ser Gln Ile Asp Ile Ser Ser Gly Ser Gly Leu Asn Asp Gly
 450 455 460
 Gln Trp His Glu Val Arg Phe Leu Ala Lys Glu Asn Phe Ala Ile Leu
 465 470 475 480
 Thr Ile Asp Gly Asp Glu Ala Ser Ala Val Arg Thr Asn Ser Pro Leu

485															490				495		
Gln	Val	Lys	Thr	Gly	Glu	Lys	Tyr	Phe	Phe	Gly	Gly	Phe	Leu	Asn	Gln						
			500					505					510								
Met	Asn	Asn	Ser	Ser	His	Ser	Val	Leu	Gln	Pro	Ser	Phe	Gln	Gly	Cys						
		515					520					525									
Met	Gln	Leu	Ile	Gln	Val	Asp	Asp	Gln	Leu	Val	Asn	Leu	Tyr	Glu	Val						
	530					535					540										
Ala	Gln	Arg	Lys	Pro	Gly	Ser	Phe	Ala	Asn	Val	Ser	Ile	Asp	Met	Cys						
545					550					555					560						
Ala	Ile	Ile	Asp	Arg	Cys	Val	Pro	Asn	His	Cys	Glu	His	Gly	Gly	Lys						
				565					570						575						
Cys	Ser	Gln	Thr	Trp	Asp	Ser	Phe	Lys	Cys	Thr	Cys	Asp	Glu	Thr	Gly						
			580					585					590								
Tyr	Ser	Gly	Ala	Thr	Cys	His	Asn	Ser	Ile	Tyr	Glu	Pro	Ser	Cys	Glu						
		595					600					605									
Ala	Tyr	Lys	His	Leu	Gly	Gln	Thr	Ser	Asn	Tyr	Tyr	Trp	Ile	Asp	Pro						
	610					615					620										
Asp	Gly	Ser	Gly	Pro	Leu	Gly	Pro	Leu	Lys	Val	Tyr	Cys	Asn	Met	Thr						
625					630					635					640						
Glu	Asp	Lys	Val	Trp	Thr	Ile	Val	Ser	His	Asp	Leu	Gln	Met	Gln	Thr						
				645					650					655							
Pro	Val	Val	Gly	Tyr	Asn	Pro	Glu	Lys	Tyr	Ser	Val	Thr	Gln	Leu	Val						
			660					665					670								
Tyr	Ser	Ala	Ser	Met	Asp	Gln	Ile	Ser	Ala	Ile	Thr	Asp	Ser	Ala	Glu						
		675					680					685									
Tyr	Cys	Glu	Gln	Tyr	Val	Ser	Tyr	Phe	Cys	Lys	Met	Ser	Arg	Leu	Leu						
	690					695					700										
Asn	Thr	Pro	Asp	Gly	Ser	Pro	Tyr	Thr	Trp	Trp	Val	Gly	Lys	Ala	Asn						
705					710					715					720						
Glu	Lys	His	Tyr	Tyr	Trp	Gly	Gly	Ser	Gly	Pro	Gly	Ile	Gln	Lys	Cys						
				725					730					735							
Ala	Cys	Gly	Ile	Glu	Arg	Asn	Cys	Thr	Asp	Pro	Lys	Tyr	Tyr	Cys	Asn						
			740					745					750								
Cys	Asp	Ala	Asp	Tyr	Lys	Gln	Trp	Arg	Lys	Asp	Ala	Gly	Phe	Leu	Ser						
		755					760					765									
Tyr	Lys	Asp	His	Leu	Pro	Val	Ser	Gln	Val	Val	Val	Gly	Asp	Thr	Asp						
	770					775					780										
Arg	Gln	Gly	Ser	Glu	Ala	Lys	Leu	Ser	Val	Gly	Pro	Leu	Arg	Cys	Gln						
785					790					795					800						
Gly	Asp	Arg	Asn	Tyr	Trp	Asn	Ala	Ala	Ser	Phe	Pro	Asn	Pro	Ser	Ser						
				805					810					815							
Tyr	Leu	His	Phe	Ser	Thr	Phe	Gln	Gly	Glu	Thr	Ser	Ala	Asp	Ile	Ser						
			820					825					830								

915	920	925
Gln Leu Phe Val Gly Gly Ala Gly Gly Gln Gln Gly Phe Leu Gly Cys		
930	935	940
Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg		
945	950	955
Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr		
	965	970
Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr		
	980	985
His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe		
	995	1000
Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg		
	1010	1015
Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg		
1025	1030	1035
Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln		
	1045	1050
Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu		
	1060	1065
Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys		
	1075	1080
Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu		
	1090	1095
Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro		
1105	1110	1115
His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu		
	1125	1130
Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr		
	1140	1145
Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr		
	1155	1160
Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr		
	1170	1175
Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala		
1185	1190	1195
Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu		
	1205	1210
Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met		
	1220	1225
Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser		
	1235	1240
Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly		
	1250	1255
Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile		
1265	1270	1275
Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg		
	1285	1290
His Lys Gly Thr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala		
	1300	1305
Glu Ser Ala Asp Ala Ala Ile Met Asn Asn Asp Pro Asn Phe Thr Glu		
	1315	1320
Thr Ile Asp Glu Ser Lys Lys Glu Trp Leu Ile		
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<210> 5303
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 5303
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 acccagcggga atacgaaaga agttcaacgg caagccgggg cgcccggctg ggctcacgag
 120
 atggctgcat gaaggagtca cagcggcgag gctactgctc acgccacctg tccatgcgaa
 180
 ccaaagagat ggaaggcctg gcagacagtg ggcctggcgg ggcgggcccgg cccgcggccg
 240
 tggcagcccg tgagggcagc acggagtttg actgggggtga tgagacgtcg agggacagtg
 300
 gaggcagca gtgtggcgac tcgtggagac tcac
 334

<210> 5304
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 5304
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 1 5 10 15
 Arg Gly Ala Arg Leu Gly Ser Arg Asp Gly Cys Met Lys Glu Ser Gln
 20 25 30
 Arg Arg Gly Tyr Cys Ser Arg His Leu Ser Met Arg Thr Lys Glu Met
 35 40 45
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala
 50 55 60
 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr
 65 70 75 80
 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu
 85 90 95

<210> 5305
 <211> 582
 <212> DNA
 <213> Homo sapiens

<400> 5305
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 cctctgtccc ccaggatgtc ttgtggtggc ggtcggccgt tctgcccccc agggcacccc
 120
 ctgtttagg cactggctag ggaggggcag gcctccttcc tgcccctcga gacactcttg
 180
 ggagatgcat tttccgtctg gctcacaggg ggaggggtgag gctttgtacc ccagcccctg
 240
 cccagggcac tgtgaggggtg ggtgctggct gagcccctgg ggcagaagga gtggggcagg
 300

cgggggtcttt gttctcggct cccacagcag agccagggtga gggggggcct gccaggacta
 360
 gacagaagtg gggcggcctg aaccctgctt ccagccatgg ccagggggcca cggaaccg
 420
 caggggtgtc tgaagccgcc ctgtcagctg gccgggtccaa gcctgtggct ggagctgggtg
 480
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 540
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 582

<210> 5306

<211> 62

<212> PRT

<213> Homo sapiens

<400> 5306

Met	Ala	Arg	Gly	His	Gly	Thr	Arg	Gln	Gly	Cys	Leu	Lys	Pro	Pro	Cys
1				5					10					15	
Gln	Leu	Ala	Gly	Pro	Ser	Leu	Trp	Leu	Glu	Leu	Val	Cys	Val	Tyr	Leu
			20					25					30		
Ile	Lys	Ser	His	Arg	Cys	Leu	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
		35				40					45				
Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys	Lys
	50					55					60				

<210> 5307

<211> 1551

<212> DNA

<213> Homo sapiens

<400> 5307

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 120
 cattctgtct cccagccttt cttctctctt tgtgtgtctc cagcacttcc ttcttttcta
 180
 acatggcctg gagagagtct ctctctcctt gtctctgtct cttaataata gtttttaacg
 240
 tggacatctc ttccttggtg cagtgggttt taaatactga gaagaaccaa gtcaggtttt
 300
 ttaaagcaga ctaaaagcat gaaattgctt tcagaagaat gtatatcatc gggaaaagtt
 360
 cgggggcaga gtgggggaat caggctttat tcaaaagaaa cagttgaaaa catgggactt
 420
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 480
 tggaattttt tttttaagaa acttttttgt gtttttttta atttttaggtc acttattagt
 540
 gaaacctcat tttagatctg acattggtag atagatggat ttaggcaaat atgatgcgtt
 600
 tgtggggaat ccacgtgggt gacgttagaa cctcccttct gcagactgtt gcctgtcatc
 660

taagcgaatt ggaaatgctg agcttccata agtcagctga gttttaaagg taaacgttat
 720
 ggctgaagta gtaaagcacc tgaccacaaa acctcttgta aaaacagccc tgagtaggta
 780
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 840
 agcctaagaa gttatatatt taatcaggta gacaaaacag, ttcaaagcat aagggtccatg
 900
 gtggtggaaa atggatgcaa gtgattctaa gtttgtggat ttgtggatag cagagggatc
 960
 gggacctctt ggaggaaccc tgggtaccaa gctcccaggc ccttcctcta tcatggatgc
 1020
 tgggtgactt tgggaagtca ccacctcttc ccaagcctgt ttcccatatc acagatgtgg
 1080
 ggccatggcc togatgatgg tctccacagg tctttccacc tctgtgagtc caagtcaggt
 1140
 caatcagcaa ggacctatct ctgcctggg tcagctcctc agaaccaacc cccagcatct
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 1320
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 1380
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 1440
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 1551

<210> 5308

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5308

Met	Leu	Gly	Val	Gly	Ser	Glu	Glu	Leu	Thr	Gln	Gly	Arg	Asp	Gly	Ser
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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
			35				40					45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
			50			55					60				
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65					70				75					80	
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
				85				90					95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100					105					110		

<210> 5309

<211> 2078

<212> DNA

<213> Homo sapiens

<400> 5309

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aacgccggcc actctaggat cctcactcgg ggagaggagg catagctcgc ggggtcaccc
120
tccacccgca acgtactccg ggtcggcctt gcgctcgggg cctgagaggg gcggcggcgg
180
ggtcaggggc cgcacaaaga atgaaccagc agtggagag aaaatactgt aagctggctg
240
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300
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360
gcgaacgagt cctgttctaa tactgcacct tctttaaccg tccctgaatg tgccatttgt
420
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480
gtaaaaggag cttcatggct tggaaagcgg tgtgctcttt gtcgacaaga aattcccag
540
gatttccttg acaagccaac cttgttgtca ccagaagaac tcaaggcagc aagtagagga
600
aatggtgaat atgcatggta ttatgaagga agaaatgggt ggtggcagta cgatgagcgc
660
actagtagag agctggaaga tgctttttcc aaaggtaaaa agaactga aatgttaatt
720
gctggcttcc tgtatgtcgc tgatcttgaa aacatggttc aatataggag aatgaacat
780
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840
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900
gcggacagtg tatcagcaca gagtggagct tctgttcagc ccctagtgtc ttctgtaagg
960
cccctaacat cagtagatgg tcagttaaca agccctgcaa caccatcccc tgatgcaagc
1020
acttctctgg aagactcttt tgctcattta caactcagtg gagacaacac agctgaaagg
1080
agtcataggg gagaaggaga agaagatcat gaatcaccat cttcaggcag ggtaccagca
1140
ccagacacct ccattgaaga aactgaatca gatgccagta gtgatagtga ggatgtatct
1200
gcagttgttg cacagcactc cttgacccaa cagagacttt tggtttctaa tgcaaaccag
1260
acagtacccg atcgatcaga tcgatcggga actgatcgat cagtagcagg ggggtggaaca
1320
gtgagtgtca gtgtcagatc tagaaggcct gatggacagt gcacagtaac tgaagttaa
1380
ataaaaatgt cttcagctcc atgctcaagg ttgaaagggt tacctgtaaa tttctgcccc
1440
cataacatta tactcatccc tagtagtgca ttttgggagt tggggtggga aggggtatgg
1500

gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tatttaatgt
 1560
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 1620
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 1680
 ctgtgcatta atggctctca tctgactcct gcattgtgtc ttatttttct gcatggattg
 1740
 gcataagacc attactaaaa tttggcacct gtgagatggt tgatattatg aacaggaaac
 1800
 ataatttaat gtatgaatag atgtgaattt gggatttcaa aatagatgaa taacaactat
 1860
 tttatagtaa agttattgaa atggaaatga aaacagccag taacttatgt ttcagaatgt
 1920
 ttgtaacaca cttcatgggtg ttcccatagg ctttgctgtc tagtcttata gtttgagggt
 1980
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 2040
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 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

Met	Met	Ala	Gly	Cys	Gly	Glu	Ile	Asp	His	Ser	Ile	Asn	Met	Leu	Pro
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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
		20					25					30			
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
	35					40					45				
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50				55					60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65				70				75						80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
			85					90						95	
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
			100					105					110		
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
		115				120						125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
	130					135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145				150						155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
			165					170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
		180					185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195					200						205			
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210	215	220
Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser		
225	230	235
Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn		240
	245	250
Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser		255
	260	265
Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr		270
	275	280
Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala		285
	290	295
Gln His Ser Leu Thr Gln Arg Leu Leu Val Ser Asn Ala Asn Gln		300
305	310	315
Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala		320
	325	330
Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly		335
	340	345
Gln Cys Thr Val Thr Glu Val		350
	355	

<210> 5311

<211> 572

<212> DNA

<213> Homo sapiens

<400> 5311

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<211> 190

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<213> Homo sapiens

<400> 5312

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Glu	Val	Phe	Ser	Asp	Leu	Ala	Leu	Asp	Thr	Pro	Ala	Asn	Arg	Thr	His
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<213> Homo sapiens

<400> 5315

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<212> DNA
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<210> 5322

<211> 209

<212> PRT

<213> Homo sapiens

<400> 5322

Met	Leu	Lys	Arg	Glu	Leu	Glu	Arg	Glu	Arg	Leu	Val	Thr	Thr	Ala	Leu
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Arg	Gly	Glu	Leu	Gln	Gln	Leu	Ser	Gly	Ser	Gln	Leu	His	Gly	Lys	Ser
			20					25					30		
Asp	Ser	Pro	Asn	Val	Tyr	Thr	Glu	Lys	Lys	Glu	Ile	Ala	Ile	Leu	Arg
			35				40						45		
Glu	Arg	Leu	Thr	Glu	Leu	Glu	Arg	Lys	Leu	Thr	Phe	Glu	Gln	Gln	Arg
			50			55					60				
Ser	Asp	Leu	Trp	Glu	Arg	Leu	Tyr	Val	Glu	Ala	Lys	Asp	Gln	Asn	Gly
65				70					75					80	
Lys	Gln	Gly	Thr	Asp	Gly	Lys	Lys	Lys	Gly	Gly	Arg	Gly	Ser	His	Arg
			85					90					95		
Ala	Lys	Asn	Lys	Ser	Lys	Glu	Thr	Phe	Leu	Gly	Ser	Val	Lys	Glu	Thr
			100					105					110		
Phe	Asp	Ala	Met	Lys	Asn	Ser	Thr	Lys	Glu	Phe	Val	Arg	His	His	Lys
			115				120					125			
Glu	Lys	Ile	Lys	Gln	Ala	Lys	Glu	Ala	Val	Lys	Glu	Asn	Leu	Lys	Lys
			130			135					140				
Phe	Ser	Asp	Ser	Val	Lys	Ser	Thr	Phe	Arg	His	Phe	Lys	Asp	Thr	Thr
145				150					155					160	
Lys	Asn	Ile	Phe	Asp	Glu	Lys	Gly	Asn	Lys	Arg	Phe	Gly	Ala	Thr	Lys
			165					170					175		
Glu	Ala	Ala	Glu	Lys	Pro	Arg	Thr	Val	Phe	Ser	Asp	Tyr	Leu	His	Pro

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<210> 5323
 <211> 475
 <212> DNA
 <213> Homo sapiens

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<210> 5324
 <211> 105
 <212> PRT
 <213> Homo sapiens

<400> 5324
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 Met Arg Thr Leu Gly Thr Thr Ser Thr Ser Pro Pro Tyr Ser Ala His
 35 40 45
 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln
 50 55 60
 Leu Trp Thr Ala Pro Arg Ser Leu Leu Leu Ser Val Gly Leu Ala Ser
 65 70 75 80
 Leu Arg Arg Ala Ser Gln His Ala Val Met Leu Pro Gln Leu Leu Ala
 85 90 95
 Val Ser Cys Leu Pro Asp Pro Gly Arg
 100 105

<210> 5325
 <211> 938
 <212> DNA
 <213> Homo sapiens

<400> 5325

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 180
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 240
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 300
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<210> 5326

<211> 234

<212> PRT

<213> Homo sapiens

<400> 5326

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Gly	Ala	Leu	Gly	Gln	Gln	Gln	Ser	Leu	Gly	Ala	Arg	Ala	Leu	Ala	Ser
		20						25					30		
Ala	Gly	Ser	Glu	Ser	Arg	Asp	Glu	Tyr	Ser	Tyr	Val	Val	Val	Gly	Ala
		35					40					45			
Gly	Ser	Ala	Gly	Cys	Val	Leu	Ala	Gly	Arg	Leu	Thr	Glu	Asp	Pro	Ala
	50					55				60					
Glu	Arg	Val	Leu	Leu	Leu	Glu	Ala	Gly	Pro	Lys	Asp	Val	Arg	Ala	Gly
65					70				75					80	
Ser	Lys	Arg	Leu	Ser	Trp	Lys	Ile	His	Met	Pro	Ala	Ala	Leu	Val	Ala
			85					90					95		
Asn	Leu	Cys	Asp	Asp	Arg	Tyr	Asn	Trp	Cys	Tyr	His	Thr	Glu	Val	Gln

	100		105		110
Arg Gly Leu Asp Gly Arg Val Leu Tyr Trp Pro Arg Gly Arg Val Trp					
115		120		125	
Gly Gly Ser Ser Ser Leu Asn Ala Met Val Tyr Val Arg Gly His Ala					
130		135		140	
Glu Asp Tyr Glu Arg Trp Gln Arg Gln Gly Ala Arg Gly Trp Asp Tyr					
145		150		155	160
Ala His Cys Leu Pro Tyr Phe Arg Lys Ala Gln Gly His Xaa Ala Gly					
	165		170		175
Arg Gln Pro Val Pro Gly Arg Asp Gly Pro Leu Arg Val Ser Arg Gly					
	180		185		190
Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln					
	195		200		205
Ala Gly Tyr Pro Leu Thr Glu Asp Met Asn Gly Phe Gln Gln Glu Gly					
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Phe Gly Trp Met Asp Met Thr Ile His Glu					
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<210> 5327

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 5327

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<210> 5328

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5328

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			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35					40					45			
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

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Ala Thr Glu Asp Val Arg His Tyr Phe Pro Glu Leu Leu Asp Phe Asn															
65	70	75	80												
Ala Thr Trp Val Phe Val Ala Thr Trp Tyr Arg Val Thr Phe Phe Gly															
	85	90	95												
Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr															
	100	105	110												
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp															
	115	120	125												
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly															
	130	135	140												
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr															
145	150	155	160												
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr															
	165	170	175												
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp															
	180	185	190												
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu															
	195	200	205												
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val															
	210	215	220												
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly															
225	230	235	240												
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln															
	245	250	255												
Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys															
	260	265	270												
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys															
	275	280	285												
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly															
	290	295	300												
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu															
305	310	315	320												
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser															
	325	330	335												
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe															
	340	345	350												
Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys															
	355	360	365												
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln															
	370	375	380												
Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg															
385	390	395	400												
Glu Arg Val Xaa Pro Met Thr Val Ser Ala Ala Thr Glu Ala Asp Ala															
	405	410	415												
Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu															
	420	425	430												
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn															
	435	440	445												
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr															
	450	455	460												
Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser															
465	470	475	480												
Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His															